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Payroll Taxes in Canada Revisited: Structure, Statutory Parameters, and Recent Trends

by Zhengxi Lin

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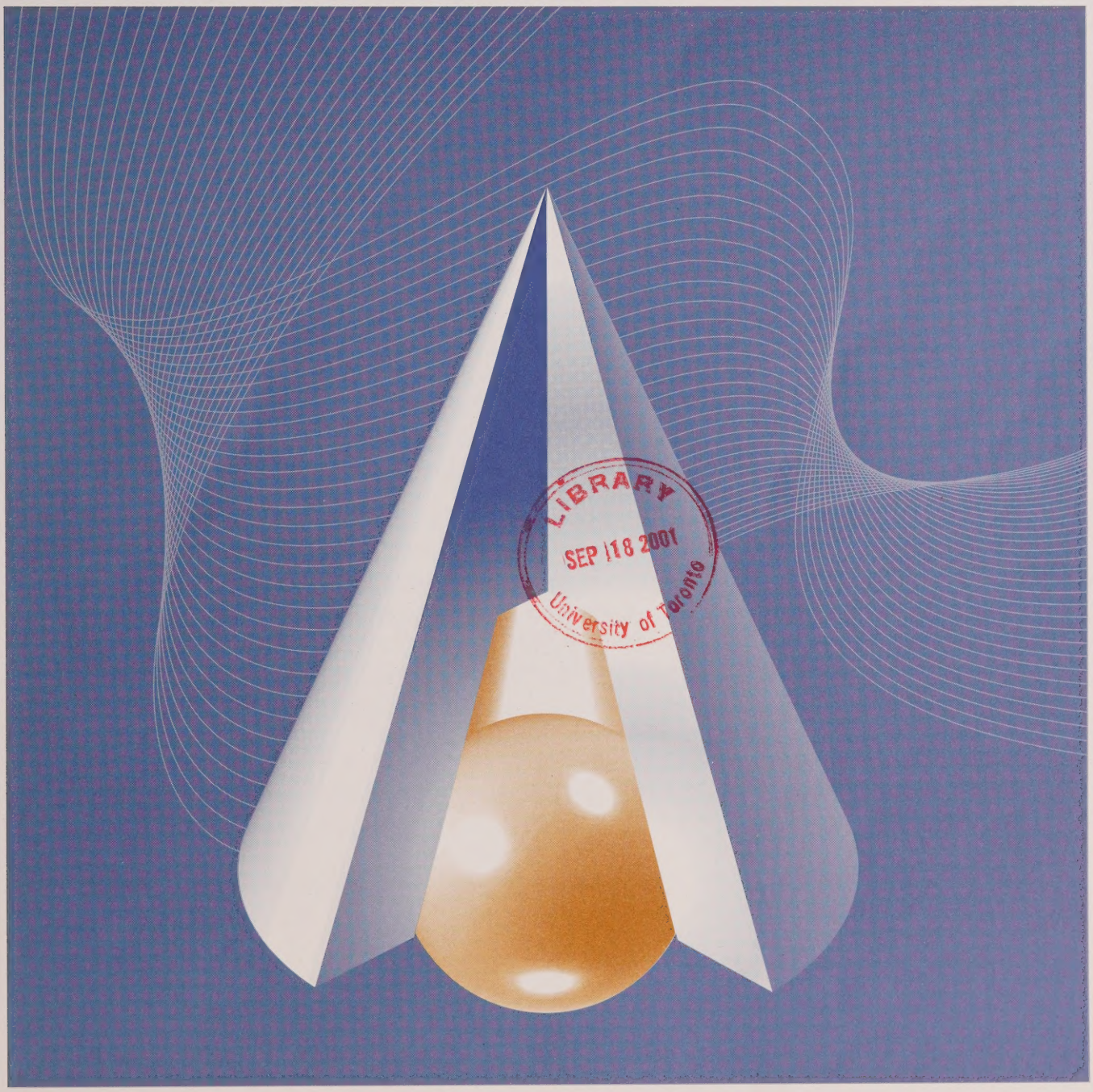

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Aussi disponible en français

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ABSTRACT

This paper extends earlier work by updating the structure and policy parameters of payroll taxes in Canada. Drawing from a recent dataset, it also reports trends on the level, growth and role of each component of these taxes in recent years. Finally, it compares Canadian payroll taxes to those of the world's leading developed countries. The following highlights the main findings.

- Payroll taxes in Canada have grown considerably since the early 1980s, constituting an increasingly important source of revenues for both the federal and provincial governments. However, the rapid expansion observed in earlier years has in large part slowed down in the early 1990s. Payroll tax revenues collected from employees and employers in the country have stabilized at around 5.7% of gross domestic product (GDP) or 14.0% of total federal and provincial government revenues since 1992; the effective total payroll tax rate has levelled off at around $12.20 for every $100 of wages and salaries since 1994.

- The structure, level, growth, and role of each component of payroll taxes vary considerably from one province to another. Yet, employment insurance (EI) premiums have been the largest component of these taxes in every province in both the 1980s and the 1990s, regardless of whether there are provincial payroll taxes; rising EI premiums have also consistently been the leading contributor to the expansion of total payroll taxes during this period.

- Despite rapid growth in the 1980s and early 1990s, Canadian payroll taxes remain one of the lowest in the world's major developed economies. According to data compiled by the OECD, total payroll tax revenues in Canada amounted to 6.0% of GDP in 1996 — that is 14% lower than that of the United States (at 7.0% of GDP); the lowest in the G-7 nations; and the 9th lowest among the 29 OECD member states.

Key words: EI premiums, C/QPP contributions, workers' compensation premiums, provincial/territorial payroll taxes, effective payroll tax rates

JEL classification: E62; H25

I. Introduction

Since the publication of Lin, Picot and Beach (1996)[1] and Picot, Lin and Beach (1995),[2] we have received a large volume of communications from the media, policy analysts, and business groups as well as academic researchers. Earlier correspondences were largely data requests; but inquiries of late are increasingly related to changes in policy parameters and particularly trends in recent years. These communications and others indicate that interest in payroll taxes continues to be high. This is hardly surprising for a number of reasons.

First, as will be seen later, payroll taxes have expanded substantially since the early 1980s and have become an increasingly important source of government revenues in Canada, although the growth has somewhat levelled off in the early to mid-1990s. Revenues raised from payroll taxes levied on employers and employees reached over $48 billion in 1997, amounting to 14% of total federal and provincial government revenues. This represents an increase of over 70% from 1980 (at 8.2%). Over the same period, total payroll tax revenues rose from 2.8% of GDP to 5.7%; the effective total payroll tax rate more than doubled from $5.61 per $100 of wages and salaries to $12.23; and average annual total payroll taxes increased from $1,650 per employee to over $4,200 (in 1997 constant dollars).

Second, a number of payroll taxes or the social security programs that these taxes wholly or partially fund have lately raised vigorous political debate and widespread public concern. For example, the large amount of cumulative surplus in the employment insurance fund[3] has recently sparked a series of policy debates among politicians, business groups, labour organizations as well as the general public. On the other hand, the large amount of unfunded liabilities in the Canada/Quebec pension plan (C/QPP),[4] compounded by the increasing expected future benefit payouts associated with demographic trends (e.g., the forthcoming retirement of the large baby boom cohort, population aging as a result of the continual increase in life expectancy and decrease in fertility), implies that sustainability of the program inevitably requires substantial increases in contributions or reductions in benefits or a combination of both for a long period to come. Rising C/QPP contributions increase the tax burden of current workers and businesses, which would have far-reaching labour market and other implications. Lower levels of benefits, on the other hand, reduce the income, consumption and living standards of not only current but also future retirees, which would also have wide-ranging economic and social implications. Both prospects have caused widespread public concerns.

Third, there continues to be considerable interest in the effects of payroll taxes. The employer portion of payroll taxes is part of indirect labour costs that can appreciably affect firms' cost competitiveness. Employers may react to such taxes in a variety of ways. They may, for example,

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[1] Z. Lin, G. Picot and C. Beach (1996), "What Has Happened to Payroll Taxes in Canada over the Last Three Decades?", vol. 44 , no. 4, *Canadian Tax Journal* 1052-77.

[2] G. Picot, Z. Lin and C. Beach (1995), "Recent Trends in Employer Payroll Taxes", *Canadian Economic Observer* (September) 3.1-24.

[3] The Auditor-General reports an accumulated surplus of $21 billion by March 31, 1999, *The Globe and Mail*, October 27, 1999, A7.

[4] Details are found in "An Information Paper for Consultations on the Canada Pension Plan" (1996), released by the federal, provincial and territorial governments of Canada, Ottawa: Finance Canada.

reduce labour demand, substitute other factors of production for labour, or adopt new labour-saving technology. The result would be a loss of jobs in the economy. Alternatively, they may raise prices on their output or reduce wage increases that they would otherwise be willing to pay. In either case, the actual burden of the taxes could, in the long run, be partially or fully passed onto consumers through higher prices or onto labour through lower wages.[5]

Furthermore, most empirical studies have found, to varying degrees, a negative impact of payroll taxes on paid-employment, at least over the short- to mid-term.[6] However, payroll taxes may also have effects on self-employment, which has rarely been explored. To the extent that payroll taxes act as a disincentive for businesses to create paid jobs and hence an incentive for turning instead to contracting-out and other methods of engaging labour, rising payroll taxes would have created the demand for services provided by self-employed workers. Thus, to the extent that paid-employment is affected negatively but self-employment positively,[7] the impact on total employment of payroll taxes may be smaller than previously documented. Much remains to be done to investigate the self-employment impact, and thus the total employment impact.

Fourth, payroll taxes levied on workers reduce take-home earnings and disposable income available for consumption and maintaining standards of living. Workers may react to such taxes by reducing labour supply or demanding higher pre-tax wages. The result would also imply a lower level of employment in the economy, or higher labour costs to employers and hence lower labour demand. These issues also continue to be debated.

Finally, given that a certain level of taxes has to be raised, there is also the issue of effectiveness and effects of payroll taxes relative to other forms of taxation. It is important to place impacts of payroll taxes within the context of alternative forms of taxation, by both economic as well as political considerations.

In short, there are a great number of important issues surrounding payroll taxes. To properly address these and others requires knowledge as well as empirical analysis of the current tax system; available and suitable data are vital in the latter case. To facilitate our own as well as

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[5] For surveys and findings on these possible effects, see for example, J. Kesselman (1997), "Economic Issues of General Payroll Taxes", Chapter 3, *General Payroll Taxes: Economics, Politics, and Design*, Canadian Tax Paper no. 101, Toronto: Canadian Tax Foundation; M. Abbott and C. Beach (1997), "The Impact of Employer Payroll Taxes on Employment and Wages: Evidence for Canada, 1970-1993", in M. Abbott, C. Beach and R. Chaykowski (ed.), *Transition and Structural Change in the North American Labour Market* 154-234, Kingston, Ontario: IRC Press; R. Archambault and D. Hostland (1996), "Payroll Taxes and Employment in Canada: Some Evidence from Provincial Data", mimeo, Ottawa: Applied Research Branch, Human Resources Development Canada; L. Marchildon, T. Sargent and J. Ruggeri (1996), "The Economic Effects of Payroll Taxes: Theory and Empirical Evidence", mimeo, Ottawa: Economic Studies and Policy Analysis Division, Finance Canada; C. Beach, Z. Lin and G. Picot (1995), "The Employer Payroll Tax in Canada and Its Effects on the Demand for Labour", presented at the conference on Transition and Structural Change in the North American Labour Market, Kingston, Ontario: John Deutsh Institute and the Industrial Relations Centre, Queen's University, May 25-27; L. Di Mitteo and M. Shannon (1995), "Payroll Taxation in Canada: An Overview", vol. 3, no. 4, *Canadian Business Economics* 5-22.

[6] See examples in footnote 5 and the references therein.

[7] For recent trends of self-employment and a discussion of the possible impacts of payroll taxes, see Z. Lin, J. Compton and G. Picot (1999), "Rising Self-Employment in the Midst of High Unemployment: An Empirical Analysis of Recent Developments in Canada", vol. 7, no. 4, *Canadian Business Economics* 65-78.

others' research efforts, we have updated an earlier data compilation exercise which in large part leads to this paper.

The rest of the paper proceeds as follows. Section 2 provides a comprehensive review of the structure and policy parameters of the Canadian payroll tax system. Section 3 reports trends on the level, growth and role of each component of these taxes in recent years for the country as a whole and for each province. Section 4 compares Canadian payroll taxes to those of the world's leading developed countries. Finally, Section 5 closes the paper with a summary of main findings. Detailed data series are provided in the appendix.

2. Structure and Legislative Parameters

A government levy is considered a payroll tax if and only if it satisfies two conditions: i) being legislated and ii) being related to employment (i.e., earnings for workers or payrolls for employers).[8] Many lump-sum charges (e.g., Ontario's health care premiums from 1959-1989, health insurance premiums charged on program participants by Alberta and British Columbia) are not payroll taxes because although being legislated, they are unrelated to employment and invariant to earnings/payrolls. On the other hand, many fringe benefits (e.g., employers' contributions to employees' private pension plans, group life insurance) are not payroll taxes because although being related to employment and varied with earnings in some cases, they are not legislated.

Table 1: Payroll Taxes in Canada, 1999

Name of Tax	Authority	Contributor	Effective
Employment Insurance (EI)	Federal	Employers; Employees	1940
Canada Pension Plan (CPP)[1]	Federal	Employers; Employees; Self-employed	1966
Workers' Compensation (WC)	Workers' Compensation Boards	Employers	1910s
Health Services Fund (HSF)[2]	Quebec	Employers	1970
Health and Post-Secondary Education Tax Levy	Manitoba	Employers	1982
Employer Health Tax (EHT)[3]	Ontario	Employers	1990
Health and Post-Secondary Education Tax	Newfoundland	Employers	1990
Payroll Tax	Northwest Territories	Employees	1993
Employer Contributions to Vocational Training	Quebec	Employers	1996

1 Workers in Quebec are covered by, and contribute to, the parallel Quebec pension plan (QPP).

2 Between 1970 and 1977, the levy was also charged on the net income of employees and the self-employed. These non-employer contributions were abolished at the end of 1977. In 1993, another form of individual contributions to the HSF was introduced.

3 The EHT was initially charged on employer payrolls only but expanded its coverage to net self-employment income in 1993 (self-employed health tax (S-EHT)). Beginning in 1999, the S-EHT was abolished.

8 For more detailed discussions on the characteristics of payroll taxes, see J. Kesselman (1997), "Role of Payroll Taxes in Public Finances", Chapter 2, supra footnote 5.

There are currently a total of nine payroll taxes in Canada: two nation-wide by the federal government, one nation-wide by all provincial/territorial governments, and six provincial/territorial by five provincial/territorial governments (Table 1). The two national payroll taxes by the federal government are the employment insurance (EI) premiums and the Canada/Quebec pension plan (C/QPP) contributions. While EI premiums are levied on employees and employers, C/QPP contributions are levied on employees, employers and the self-employed. The other national payroll tax by all provincial/territorial governments is the workers' compensation premiums levied on employers only.[9] The six provincial/territorial payroll taxes are: the health services fund contributions levied mostly on employers by Quebec; the health and post-secondary education tax levy charged exclusively on employers by Manitoba; the employer health tax of Ontario; the health and post-secondary education tax levied on employers only by Newfoundland; the payroll tax levied on employees only by Northwest Territories; and the employer contributions to vocational training charged on employers only by Quebec.

Employment Insurance Premiums

The federal government has levied a national payroll tax on both employees and employers to finance the employment insurance (unemployment insurance until June 1996) program since 1940. The system covers wage and salary employees only; self-employed workers are excluded from coverage except self-employed fishermen, who are covered for income support during the off season under separate regulatory rules.

Financing arrangements for the program have undergone several rounds of changes, the most significant of which took place on November 18, 1990. Prior to that date, costs of operating the system were shared between employees, employers and the federal government — each party was responsible for different components of the total cost at different points in time under different legislation. Under Bill C-21 which took effect on November 18, 1990, the federal government completely withdrew its share of contribution and the fund became "self-financing" — responsibility for the entire cost of running the system fell solely on the shoulders of employees and employers.[10]

Table 2 shows the key financing parameters of the program since 1972. Employee premiums are calculated as the product of the premium rate multiplied by the insurable earnings up to a maximum. Both the premium rate and the maximum insurable earnings are set by the Canada Employment Insurance Commission, with the approval of the Governor in Council on the recommendation of the Minister of Human Resource Development and the Minister of Finance. As specified by the Employment Insurance (EI) Act,

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[9] WC levies by all the provincial/territorial governments are counted in the paper as one national payroll tax primarily because the objective of these levies is the same across all jurisdictions --- to fund WC programs. It must be noted that unlike EI and C/QPP taxes, WC taxes are independently levied by each provincial/territorial government with substantial variations in premium rates as well as methods of operation across these jurisdictions. There are also wide variations in assessment rates and methods of operation within some jurisdictions, see discussion below.

[10] Details on financing arrangements are documented in Z. Lin (1998), "Employment Insurance in Canada: Recent Trends and Policy Changes", vol. 46, no. 1, *Canadian Tax Journal* 58-76.; also in J. Kesselman (1983), *Financing Canadian Unemployment Insurance*, Canadian Tax Paper no. 73, Toronto: Canadian Tax Foundation.

> "The Commission shall, ..., set the premium rate for each year at a rate that the commission considers will, to the extent possible, (a) ensure that there will be enough revenue over a business cycle to pay the amounts authorized to be charged to the Employment Insurance Account; and (b) maintain relatively stable rate levels throughout the business cycle."[11]

The coverage was universal for wage and salary employees up to 1978. The job-specific minimum weekly hours/earnings coverage requirement was introduced in 1979. It was set at 20 hours a week or 20% of the weekly maximum insurable earnings for 1979 and 1980; 15 hours a week and 20% of the weekly maximum insurable earnings between 1981 and 1986; and 15 hours a week or 20% of the weekly maximum insurable earnings between 1987 and 1996. Effective January 1, 1997, the EI Act abolished this minimum weekly hours/earnings coverage requirement; every hour of paid-employment became insured. For the purpose of calculating premiums, the EI Act also replaced the weekly maximum insurable earnings and weekly maximum premiums with an annual ceiling.

[11] See HRDC website http://www.hrdc-drhc.gc.ca/ei/legis/ei3.shtml.

Table 2: Key Parameters of Employee[a] Contributions to Employment Insurance,[b] 1972-1999

	Premium Rate	Weekly			Annually	
		Minimum Coverage Requirement[c]	Maximum Insurable Earnings	Maximum Premiums	Maximum Insurable Earnings	Maximum Premiums
	(%)		($)	($)	($)	($)
1972	0.90	None	150	1.35	7,800	70.20
1973	1.00	None	160	1.60	8,320	83.20
1974	1.40	None	170	2.38	8,840	123.76
1975	1.40	None	185	2.59	9,620	134.68
1976	1.65	None	200	3.30	10,400	171.60
1977	1.50	None	220	3.30	11,440	171.60
1978	1.50	None	240	3.60	12,480	187.20
1979	1.35	20 hours or $79.50	265	3.58	13,780	186.03
1980	1.35	20 hours or $87.00	290	3.92	15,080	203.58
1981	1.80	15 hours and $83.00	315	5.67	16,380	294.84
1982	1.65	15 hours and $70.00	350	5.78	18,200	300.30
1983	2.30	15 hours and $77.00	385	8.86	20,020	460.46
1984	2.30	15 hours and $85.00	425	9.79	22,100	508.30
1985	2.35	15 hours and $92.00	460	10.81	23,920	562.12
1986	2.35	15 hours and $99.00	495	11.63	25,740	604.89
1987	2.35	15 hours or $106.00	530	12.46	27,560	647.66
1988	2.35	15 hours or $113.00	565	13.28	29,380	690.43
1989	1.95	15 hours or $121.00	605	11.80	31,460	613.47
1990	2.25	15 hours or $128.00	640	14.40	33,280	748.80
1991[1]	2.25/2.80	15 hours or $136.00	680	15.30/19.04	35,360	795.60/990.08 (892.84)
1992	3.00	15 hours or $142.00	710	21.30	36,920	1,107.60
1993	3.00	15 hours or $149.00	745	22.35	38,740	1,162.20
1994	3.07	15 hours or $156.00	780	23.95	40,560	1,245.19
1995	3.00	15 hours or $163.00	815	24.45	42,380	1,271.40
1996[2]	2.95	15 hours or $150.00	750	22.13	39,000	1,150.50
1997	2.90		None		39,000	1,131.00
1998	2.70		None		39,000	1,053.00
1999	2.55		None		39,000	994.50

a Employer premiums are equal to 1.4 times employee premiums since 1972.

b The system was known as unemployment insurance (UI) up to July 1, 1996.

c The weekly coverage requirement applied to each job separately. Hours of work/earnings could not be summed up across different jobs to meet this minimum coverage requirement. For example, an employee who held many different jobs, none of which separately met the coverage requirement but well above the hours/earnings threshold if taken together, was not covered by the system. Effective January 1, 1997, this minimum weekly hours/earnings coverage requirement was abolished and every hour of work was insured.

1 The new premium rate of 2.80% took effect July 1. Figure in parenthesis is the annual estimate weighted by the total number of weeks in which each premium rate was in effect.

2 For calculating EI benefits, the maximum weekly insurable earnings were set at $845 for the first six months and then at $750 until the year 2000.

Source: Human Resources Development Canada.

Table 3: Key Parameters of Employee[a] Contributions to Canada Pension Plan,[b] 1966-1999

	Contribution Rate (%)	MPEs ($)	Exemption ($)	MCEs ($)	Maximum Contributions ($)
1966	1.8	5,000	600	4,400	79.20
1967	1.8	5,000	600	4,400	79.20
1968	1.8	5,100	600	4,500	81.00
1969	1.8	5,200	600	4,600	82.80
1970	1.8	5,300	600	4,700	84.60
1971	1.8	5,400	600	4,800	86.40
1972	1.8	5,500	600	4,900	88.20
1973	1.8	5,600	600	5,000	90.00
1974	1.8	6,600	700	5,900	106.20
1975	1.8	7,400	700	6,700	120.60
1976	1.8	8,300	800	7,500	135.00
1977	1.8	9,300	900	8,400	151.20
1978	1.8	10,400	1,000	9,400	169.20
1979	1.8	11,700	1,100	10,600	190.80
1980	1.8	13,100	1,300	11,800	212.40
1981	1.8	14,700	1,400	13,300	239.40
1982	1.8	16,500	1,600	14,900	268.20
1983	1.8	18,500	1,800	16,700	300.60
1984	1.8	20,800	2,000	18,800	338.40
1985	1.8	23,400	2,300	21,100	379.80
1986	1.8	25,800	2,500	23,300	419.40
1987	1.9	25,900	2,500	23,400	444.60
1988	2.0	26,500	2,600	23,900	478.00
1989	2.1	27,700	2,700	25,000	525.00
1990	2.2	28,900	2,800	26,100	574.20
1991	2.3	30,500	3,000	27,500	632.50
1992	2.4	32,200	3,200	29,000	696.00
1993	2.5	33,400	3,300	30,100	752.50
1994	2.6	34,400	3,400	31,000	806.00
1995	2.7	34,900	3,400	31,500	850.50
1996	2.8	35,400	3,500	31,900	893.20
1997	3.0	35,800	3,500	32,300	969.00
1998	3.2	36,900	3,500	33,400	1,068.80
1999	3.5	37,400	3,500	33,900	1,186.50

a Employer contributions are equal to employee contributions; self-employed workers pay both the employee and employer contributions.

b Workers in Quebec are covered by, and contribute to, the provincially-run Quebec pension plan (QPP). QPP's contribution parameters are identical to that of CPP.

Source: Human Resources Development Canada.

For the year 1999, the employee premium rate is set at $2.55 per $100 of insurable earnings; the yearly maximum insurable earnings at $39,000. The maximum premiums each wage and salary worker contributes to the system for the year is hence $994.50; employers are assessed at 1.4 times the employee premium rate for the annual maximum of $1,392.30 per employee.

Canada/Quebec Pension Plan Contributions

The federal/Quebec governments have also levied a national payroll tax on employees, employers and the self-employed to finance the Canada/Quebec pension plan (C/QPP) since 1966. The C/QPP is financed on a pay-as-you-go basis (i.e., contributions by today's workers finance the benefits of today's recipients). All Canadian workers between the age of 18 and

retirement (60 to 70) are covered by the program. Major changes to the plan (e.g., benefit levels, contribution rates, the contributory base, or the investment of the CPP fund) require the approval of the Parliament of Canada and the governments of at least two-thirds of the provinces with two-thirds of Canada's population.

The key financing parameters since 1966 are shown in Table 3. In 1999, the maximum pensionable earnings (MPEs) are set at $37,400, the basic exemption at $3,500 and the maximum contributory earnings (MCEs) at $33,900. All wage and salary employees and their employers contribute at a separate equal rate of $3.50 per $100 of the contributory earnings up to the maximum contribution of $1,186.50. Self-employed workers pay both the employee's and employer's share of contributions at a combined rate of $7.00 per $100 of the contributory earnings for a maximum contribution of $2,373.00.

Workers' Compensation Premiums

Workers' compensation (WC) premiums are levied on employers only by all provincial/territorial governments to finance the workers' compensation programs run by the provincially/territorially administered Workers' Compensation Boards (WCBs).

Premiums charged to fund the WC programs are based on industry groupings with different collective liability assessment and varying degrees of experience rating (i.e., premiums vary according to the hazard or risk of actual program use). This approach is used in all provincial and territorial jurisdictions except Prince Edward Island, Nova Scotia and the North West Territories. An employer may have its operation classified into more than one industry with different assessment rates. The system further allows some degree of experience-rating within the broad industrial categories, resulting in different assessment rates within the same industry.[12]

Provincial/Territorial Payroll Taxes

As noted earlier, there are currently six provincial/territorial payroll taxes levied by five provincial/territorial governments. They are the health services fund contributions levied mostly on employers by Quebec; the health and post-secondary education tax levy charged exclusively on employers by Manitoba; the employer health tax of Ontario; the health and post-secondary education tax levied on employers only by Newfoundland; the payroll tax levied on employees only by Northwest Territories; and the employer contributions to vocational training charged on employers only by Quebec. While detailed description and analysis of these payroll taxes are provided in Kesselman (1997),[13] the following outlines the key parameters of each of them in a chronological order.

Quebec's Health Services Fund

Quebec was the first province to levy a tax on employer payrolls as well as net individual income to partly finance its health care system in 1970. Key parameters of the tax are shown in Table 4.

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[12] For further details on the financing of the Canadian WC system, see F. Vaillancourt (1994), *The Financing of Workers' Compensation Boards in Canada: 1960-1990*, Canadian Tax Paper no. 98, Toronto: Canadian Tax Foundation.

[13] J. Kesselman (1997), "General Payroll Taxes in Practice: The Canadian Provinces", Chapter 5, supra footnote 5.

The levy on employers has been flat-rated up to 1998 and includes the entire payroll of all employers in the coverage with only minor exceptions.[14] The legislated employer tax rate has been through many rounds of increases since its inception. It was initially set at 0.8% of the employer's total payroll in 1970, and has risen to the present level of 4.26% since May 1995.

Table 4: Key Parameters of Quebec's Health Services Fund, 1970-1998

Employer Contributions	
Effective	Tax Rate (%)
November 1, 1970	0.80
June 1, 1976	1.50
April 1, 1981	3.00
May 2, 1986	3.22
May 17, 1989	3.36
April 27, 1990	3.45
September 1, 1991	3.75
Since May 10, 1995	4.26[3]

Non-Employer Contributions			
		Maximum ($)	
Effective	Tax Rate (%)[a]	Employee[b]	Self-Employed
1970 - 1975[1]	0.8	125	125
1976	1.2	188	300
1977	1.5	235	375

Effective	Taxable income ($)[c]	Tax Rate[d]	Maximum ($)
Since 1993[2]	Under 40,000	1.0%	150
	Over 40,000	$150 + 1.0%	1,000

a Applied to net income from all sources.
b Applied to employees whose employment income accounted for at least 75% of net income or those over 65.
c Excluding wages and salaries; income from other sources as specified in the 1993-94 Budget, such as alimony payment and 20% of taxable dividends. Beginning in 1994, Old Age Security benefits are also excluded.
d The tax liability is calculated by applying the rate to taxable income.
1 Special rules applied for workers with low income.
2 Allowing an exemption of $5,000.
3 A series of contribution rate reductions to small employers with payrolls under $5 million were announced in the 1998 Budget, see discussion below.

Source: Ministère des Finances du Québec.

Between 1970 and 1977, the levy was also charged on the net income of employees and the self-employed. The legislated tax rate was also flat, applied to the net income from all sources (0.8% for 1970 to 1975, 1.2% for 1976 and 1.5% for 1977). The exemption level for married couples was twice as for single persons. And the maximum tax liability for wage and salary workers was different from that of the self-employed. These non-employer contributions were abolished at the end of 1977.

In 1993, another form of non-employer contributions to the HSF was introduced. This renewed tax differs from the earlier levy in a number of ways. First, the tax base now excludes employees' wages and salaries that are already subject to the employer tax, in addition to a number of items as specified in the 1993-94 Budget. Second, an exemption of $5,000 is allowed but applies to individual taxable income regardless of marital status. Third, there is still a maximum tax liability but the difference between employees and the self-employed no longer exists. Finally and more significantly, the tax structure is no longer flat-rated but rather depends upon levels of taxable income: for individuals whose taxable income is under $40,000, the tax rate is 1.0% for a maximum contribution of $150; for those whose taxable income is over $40,000, the tax liability is equal to $150 plus 1% of the taxable income for a maximum contribution of $1,000.

[14] Native employers operating in Indian reserves are exempted from the tax coverage, regardless of whether their employees are Indians; employers are also exempted from the tax levy since 1986 on their employees working in international financial and trade businesses.

Table 5: An Illustration of Quebec's HSF to Small Businesses, 1999-2001

Total Payrolls	Tax rate (%) (January 1, 1999)	Tax rate (%) (January 1, 2000)	Tax rate (%) (January 1, 2001)	Total % reduction
$1 million or less	4.00	3.22	2.70	36.6
$2 million	4.07	3.48	3.09	27.5
$3 million	4.13	3.74	3.48	18.3
$4 million	4.19	4.00	3.87	9.2
$5 million or more	4.26	4.26	4.26	None

Source: Personal communication with officials from the Ministère des Finances du Québec, received on September 27,1999 from Sylvie Ratté of the Canadian Federation of Independent Businesses, Montreal, Quebec (email at sylrat@netcom.ca).

The HSF offered no relief to small businesses until the 1998 Budget, which introduced a series of graduated contribution rate reductions to private-sector small employers based on their total payrolls. The phased-in rate reduction planned in the 1998 Budget would take effect July 1999 and again July 2000. But the government decided to implement it in three phases, with the first round of rate reduction starting in January 1999; the second round in January 2000; and the final round in January 2001. Table 5 illustrates how this relief to small businesses is implemented step by step. For example, the contribution rate for employers with payrolls under $1 million is reduced to 4.00% for 1999, further to 3.22% for 2000 and 2.70% for 2001 — leading to a total reduction of 36.6%. The extent of HSF contribution relief gradually declines as total payrolls rise; no reduction is granted once the total payrolls reach $5 million.[15]

Manitoba's Health and Post-Secondary Education Tax Levy

Manitoba was the second province to levy a payroll tax to help finance its health care and post-secondary education system in 1982. The levy is charged to employers only and covers all industrial sectors with one minor exception.[16] Key parameters of the tax are shown in Table 6.

In the first two years, no relief to small businesses was provided and the full tax rate of 1.5% was applied to the entire payroll. Since 1984, however, a "notch-rated" system has evolved to relieve small and medium-sized employers from the tax burden. The exemption was initially set at $50,000, and has gradually increased to the present $1 million since 1998. At the same time, the "notch maximum" has risen from the initial $75,000 to the present $2 million. The "notch rate" (stabilized at 4.5% since 1989 and declining to the present 4.3%) is applied to the "notch range" (= payroll - exemption) when total payroll is under the "notch maximum"; and the full tax rate

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[15] Let T denote the contribution rate, superscript the year, and M the quotient obtained by dividing an employer's total payroll by $1 million, the contribution rate for 1999 to 2001 applicable to employers with total payrolls under $5 million is calculated as the following:

$T^{1999} = (0.063\% \times M^{1999}) + 3.941\%$;
$T^{2000} = (0.258\% \times M^{2000}) + 2.966\%$; and
$T^{2001} = (0.390\% \times M^{2001}) + 2.310\%$.

The calculated rates are rounded to the second decimal point, for more details see Ministère des Finances du Québec (1998), *Bulletin d'information* 98-8, also available at website http://www.finances.gouv.qc.ca.

[16] Payrolls of commercial truckers associated with out-of-province activities have been exempted from the tax coverage since 1988. This coverage exemption was extended to all remunerations directly related to interprovincial and international transportation in 1991.

(stabilized at 2.25% since 1987 and declining to the present 2.15%) is applied to the entire payroll when total payroll exceeds the "notch maximum".

Table 6: Key Parameters of Manitoba's Health and Post-Secondary Education Tax Levy, 1982-1999

Effective	Exemption ($)	Notch Maximum ($)	Notch Rate (%)	Full Rate (%)
July 1, 1982	None	None	None	1.50
January 1, 1984	50,000	75,000	4.50	1.50
January 1, 1987	100,000	150,000	6.75	1.50
April 1, 1987	100,000	150,000	6.75	2.25
January 1, 1989	300,000	600,000	4.50	2.25
January 1, 1990	600,000	1,200,000	4.50	2.25
January 1, 1994	750,000	1,500,000	4.50	2.25
January 1, 1998	1,000,000	2,000,000	4.50	2.25
January 1, 1999	1,000,000	2,000,000	4.30	2.15

Source: Manitoba Department of Finance.

Ontario's Health Tax

From 1959 to 1989, Ontario charged health insurance (OHIP) premiums on program participants.[17] Beginning in 1990, the OHIP premiums were abolished and a payroll tax was levied to help finance health care spending. The tax was initially levied on employer payrolls only (Employer Health Tax (EHT)) but expanded its coverage to net self-employed income in 1993 (Self-Employed Health Tax (S-EHT)). Key parameters of the tax are shown in Table 7.

Table 7: Key Parameters of Ontario's Health Tax, 1990-1996

EHT			S-EHT		
Effective	Payroll Range ($)	Tax Rate[a] (%)	Effective	TNSEI[b] ($)	Tax Calculation[c] ($)
1990	Up to 200,000	0.980	1993	Up to 40,000	0
	200,001-230,000	1.101		40,001-200,000	(TNSEI-40,000) x 0.98%
	230,001-260,000	1.223		200,001-400,000	1,568+(TNSEI-200,000) x 2.726%
	260,001-290,000	1.344		Over 400,000	(TNSEI-40,000) x 1.95%
	290,001-320,000	1.465			
	320,001-350,000	1.586			
	350,001-380,000	1.708			
	380,001-400,000	1.829			
	Over 400,000	1.950			

a These are not marginal tax rates applying to the payrolls within the stated payroll ranges but rather tax rates that apply to the full payroll for an employer with payroll within the stated range.

b Total net self-employment income.

c The tax liability is reduced by 22% of the calculated amount to reflect that S-EHT is not deductible for income tax purposes but EHT payments are.

Source: Ontario Ministry of Finance.

[17] It is estimated that approximately 65% of OHIP premiums were paid by employers on behalf of their employees as fringe benefits, see B. Dahlby (1993), "Payroll Taxes", in A. Maslove (ed.), *Business Taxation in Ontario* 80-170, Toronto: University of Toronto Press.

The tax structure did not change until 1997. The EHT did not allow any exemption and applied to the entire payroll of all employers with only a few minor exceptions.[18] Relief to smaller businesses was provided by a series of nine graduated tax rates. The bottom rate of 0.98% (about half of the top rate) applied to employers with payrolls under $200,000; the rate gradually increased as payrolls rose to higher levels; and the top rate of 1.95% applied to employers with payrolls over $400,000.

To stimulate job creation in the private sector, the 1994 Budget announced an EHT holiday. Effective May 1, 1994, all private-sector employers who expand employment do not have to pay EHT on the increased portion of the payroll for a full year. In other words, the EHT is calculated on the lesser amount of payroll between the current year and the previous year.[19]

The S-EHT was based on the total net self-employment income (TNSEI) with an exemption of $40,000 and a different rate structure. The bottom rate of 0.98% applied to self-employed workers with TNSEI below $200,000; for those whose TNSEI fell between $200,000 and $400,000, a marginal rate of 2.726% applied to the portion of TNSEIs above $200,000; and the top rate of 1.95% applied to those whose TNSEI exceeded $400,000. The tax liability of all self-employed workers was reduced by a provincial tax credit of 22% of the calculated amount in Table 7 to reflect the fact that S-EHT was not deductible for income tax purposes but EHT payments are.

A series of changes to the EHT and S-EHT were announced in the 1996 Budget. Among them were i) the introduction of the EHT exemption of $400,000 by 1999, available to all private-sector employers and to be phased in over a three-year period;[20] ii) the applicable EHT rate being determined by the before-exemption payroll level; iii) the abolition of the one-year EHT holiday effective 1997; iv) the abolition of S-EHT by 1999; v) increasing the existing S-EHT exemption of $40,000 to $200,000 for 1997 and $300,000 for 1998; vi) replacing the old S-EHT rate structure with a flat rate of 1.95% for both 1997 and 1998; and vii) the introduction of the Fair Share Health Care Levy (FSHCL) on individuals with high income effective 1996 — this is essentially the high income surtax renamed.

The 1998 Budget announced two additional changes to the EHT and S-EHT: i) the exemption of $400,000 was accelerated to take force July 1, 1998, thus the exemption for 1998 effectively became $350,000; ii) to parallel the acceleration of EHT exemption, the 1998 total exemption on self-employment income also became $350,000.

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[18] Exempted from the tax coverage are payrolls of foreign embassies and consulates and native employers operating on Indian reserves.

[19] To ensure that employers do not take advantage of this policy for tax planning, a number of measures have been applied, including i) only genuinely new employers do not have to pay EHT in their first year of operation; ii) employers that have purchased, sold or reorganized a business or part of a business must factor in the payroll of the old entity in comparing the payroll of the two years; and iii) associated employers and employers with more than one account must aggregate their payrolls before doing year-over-year comparisons.

[20] Associated employers must agree to share only one exemption among them. The exemption is $200,000 for 1997; $300,000 for 1998; and $400,000 for 1999 and onwards. The exemption for part-year employers will be prorated by the number of days in which the business is in operation. Public-sector employers currently excluded from the one-year EHT holiday on increases in payroll are not eligible for the exemption.

With 1997 and 1998 as the transition period, the original graduate-rated EHT has evolved to a completely flat-rated (at 1.95% of total payrolls) system with an exemption of $400,000, effective January 1, 1999.

Newfoundland's Health and Post-Secondary Education Tax

Newfoundland introduced its payroll tax to help finance the health care and post-secondary education system in 1990. The tax is levied on employers only. Initially, an exemption of $300,000 was allowed to all employers;[21] the tax rate was set at 1.5%; and payrolls of all employers except those in the renewable resource sector (fishing, farming and forestry) were covered. Effective July 1992, the exemption level was lowered to $100,000; the tax rate was raised to 2%; and the previously exempted payrolls of employers in fishing, farming and forestry became taxable at the preferential rate of 1%. The exemption threshold was raised to $120,000, effective January 1, 1998; and further to $150,000, effective January 1, 1999.

Northwest Territories' Employee Payroll Tax

Northwest Territories was the latest jurisdiction to enact a payroll tax in 1993. The tax is levied on employees only. The flat tax rate of 1% applies to all wages and salaries without any exemption or maximum. At the same time as the payroll tax was introduced, a refundable cost-of-living income tax credit to year-end residents was initiated and paid through personal income tax returns. Therefore, the payroll tax burden essentially falls on workers who are not year-end residents of the territories. The objective of the tax is indeed to recover personal income taxes from workers who are not year-end residents and hence do not pay the territorial personal income tax.

Quebec's Employer Contribution to Vocational Training

Effective 1996, Quebec also levied a payroll tax on employers to help finance its training costs. The flat tax rate of 1% applies to payrolls in excess of the exemption level ($1,000,000 for 1996; $500,000 for 1997; and $200,000 from 1998 onwards). Employers' tax liability is reduced by the amount of investment they spend on government-approved manpower training.

3. Trends in Recent Years

This section reports payroll tax trends for Canada as a whole and for each province from 1980 to 1997, the most recent year for which data are available at time of writing. Annual data by component and by province dating back to 1961 are reported in Lin (2000)[22] and available upon request from the author in machine-readable form. Data reported here are historically revised series, and thus may differ somewhat from those reported earlier in Lin, Picot and Beach (1996).[23]

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[21] Associated employers were entitled to only one exemption among them.

[22] Z. Lin (2000), *Payroll Taxes in Canada, 1961-1999: Structure, Statutory Parameters, and Historical Trends*, Ottawa: Statistics Canada Labour and Household Surveys Branch (forthcoming).

[23] Supra footnote 1.

Data Source

The primary data (payroll taxes in current dollars) are extracted and derived from the following sources: the supplementary labour income (SLI) database compiled and maintained by the Income and Expenditure Accounts Division of Statistics Canada; and provincial accounts of Quebec, Manitoba, Ontario and Newfoundland. The SLI provides data on employer EI premiums and C/QPP contributions, based on which employee and hence total EI and C/QPP payroll taxes are calculated according to the fixed ratios described in the previous section;[24] the SLI also provides data on workers' compensation premiums. The provincial accounts of Quebec, Manitoba, Ontario and Newfoundland provide data on five of the six provincial payroll taxes, also described in the previous section.

Included in our data are payroll taxes collected from employees and employers in the ten provinces; those raised in the three territories as well as outside of the country are excluded. The main advantage of this dataset is its consistency over a long period. It of course also bears a number of limitations. First, as noted above, employee and thus total EI premiums and C/QPP contributions are derived from employer taxes based on the statutory fixed ratios. However, it is possible that employee contributions exceed the annual maximums in case of holding more than one job in a year and the over-contributions are refunded through the personal income tax system; whereas employers do not over contribute. Total taxes derived here do not make adjustments for employee EI and C/QPP over-contributions, and thus over-estimate total taxes to the extent of these over-contributions. Although the degree of these over-contributions is unknown, they are not believed to be significant.[25]

Second, the EI system has allowed premium reductions to employers (e.g., reductions for hiring young workers and reductions to small businesses at various points in time) but not to their employees. Deriving employee premiums based on employer taxes thus under-estimate total employee taxes. These under-estimates again are not expected to be substantial.

Third, as noted earlier, the self-employed contribute to the C/QPP at the combined employer-employee rate based on their net earnings. Since employee C/QPP contributions are derived from employer taxes here, our data under-estimate total C/QPP taxes by contributions from self-employed workers.[26]

The following secondary analytical data are constructed using the primary data along with relevant data extracted from the CANSIM database of Statistics Canada: 1) average payroll taxes

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[24] Employer EI premiums are equal to 1.4 times employee premiums; employers and employees contribute to C/QPP equally.

[25] Adjustments for these over-contributions can be made using the T1 files of Revenue Canada. However, the time series would be much shorter. Furthermore, if employer taxes are derived from employee contributions by way of the fixed ratios after adjustments for over-contributions are made, the opposite under-estimate of total taxes would occur. The most appropriate way to address this issue is to use the job-based T4 files of Revenue Canada, through which employer taxes are derived from employee contributions before adjustments for over-contributions are made; and employee contributions are adjusted using the annual maximums. But again, the time series would be substantially shorter.

[26] Again, T1 files will allow the inclusion of C/QPP contributions from the self-employed but the series would be much shorter.

per employee; 2) payroll taxes as a proportion of the gross domestic product; 3) payroll taxes as a share of total federal and provincial government revenues; and 4) the effective payroll tax rates (payroll taxes as a fraction of total wages and salaries).

Average Payroll Taxes per Employee

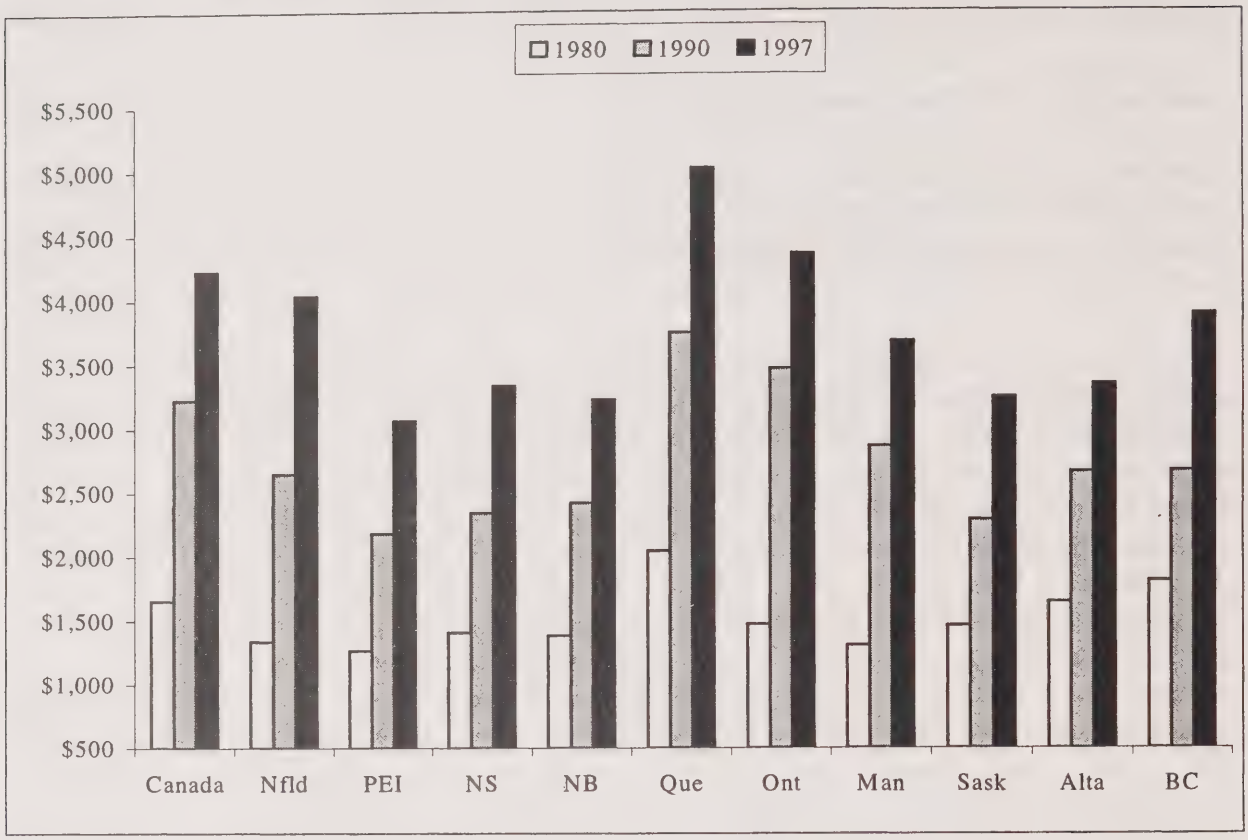
Total payroll taxes collected from employees and employers in the ten provinces amounted to over $48 billion in 1997, averaging $4,225 per wage and salary worker (Figure 1 and appendix Table A2). This represents an increase of 30% from 1990 (at $3,228) and over 150% from 1980 (at $1,656).[27]

There are substantial variations across the provinces in terms of both level and growth. Quebec led the country by a wide margin, with average total payroll taxes amounting to over $5,000 per employee in 1997 — nearly 20% higher than the national average. Businesses and their employees in Ontario paid the second highest average of $4,350 per employee — about 3% higher than the national average. The lowest average taxes were raised in Prince Edward Island, New Brunswick and Saskatchewan, equivalent to around three-quarters of the national average.

Between 1980 and 1997, Newfoundland, Ontario and Manitoba experienced the highest rates of growth in average payroll taxes (around 180% to 200%). This is hardly surprising since all instituted their levies for health care and/or post-secondary education after 1980. The slowest growth was observed in Alberta and British Columbia (104% and 115%, respectively). However, the growth pattern changed substantially decade by decade. During the 1980s, Ontario and Manitoba experienced the fastest growth (132% and 120%); British Columbia and Saskatchewan the slowest (around 50% to 60%). In the 1990s, Newfoundland and British Columbia became the fastest-growing provinces in the country (53% and 46%); Ontario and Alberta experienced the slowest growth (slightly below 26%). Growth in the remaining provinces was all above the national average in the 1990s but all below the national average in the previous decade.

[27] All figures are in 1997 constant dollars — inflation is adjusted by the gross domestic product implicit price index.

Figure 1: Average Payroll Taxes per Employee, 1980, 1990 and 1997 (1997 dollars)



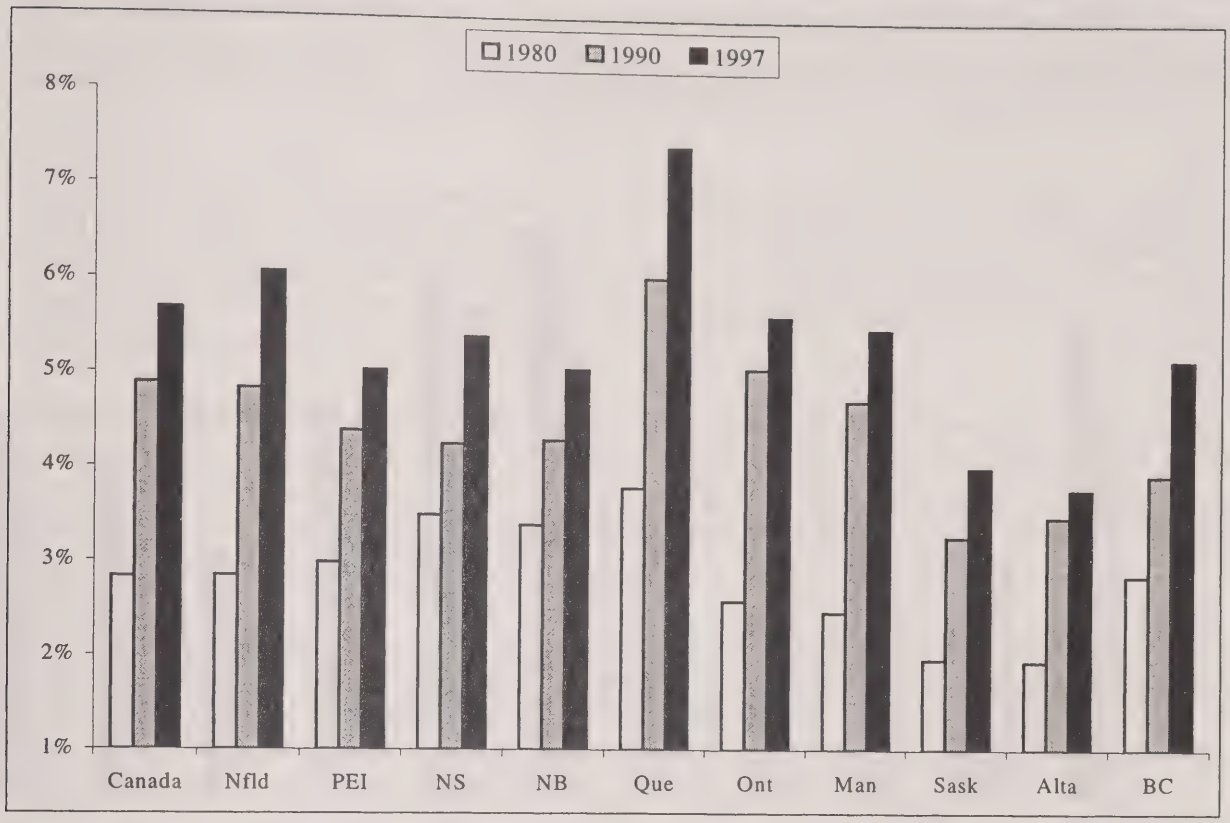
Payroll Taxes as Percentage of GDP

As shown in Appendix Table A3, total payroll taxes paid by employees and employers in the country as a whole have stabilized at 5.7% of GDP (at market prices) since 1992, up from 4.9% in 1990 and 2.8% in 1980. Again there are significant provincial variations in both level and growth. Not surprisingly, the highest proportions are observed in the four provinces with provincial levies. In 1997, revenues raised through payroll taxes amounted to 7.4% of GDP in Quebec, 6.1% in Newfoundland, 5.6% in Ontario, and 5.5% in Manitoba. The lowest was collected in Alberta at 3.8% of GDP and Saskatchewan at 4.0% of GDP.[28]

From 1980 to 1997, the fastest expansion was observed in Newfoundland, Ontario and Manitoba (around 110% to 120%); Nova Scotia and New Brunswick experienced the slowest growth (about 50%). This two-decade growth trend is significantly different from that in the 1990s. While Newfoundland remained one of the fastest-expanding provinces, the highest growth was observed in Nova Scotia, Quebec, Saskatchewan and British Columbia; Ontario and Alberta became the slowest-growing provinces in the country.

[28] Payroll taxes as a share of federal and provincial government revenues (Appendix Table A4) and effective tax rates (Appendix Table A5) show a similar stabilization in payroll taxes in the mid 1990s.

Figure 2: Payroll Taxes as a Percentage of Gross Domestic Product, 1980, 1990 and 1997

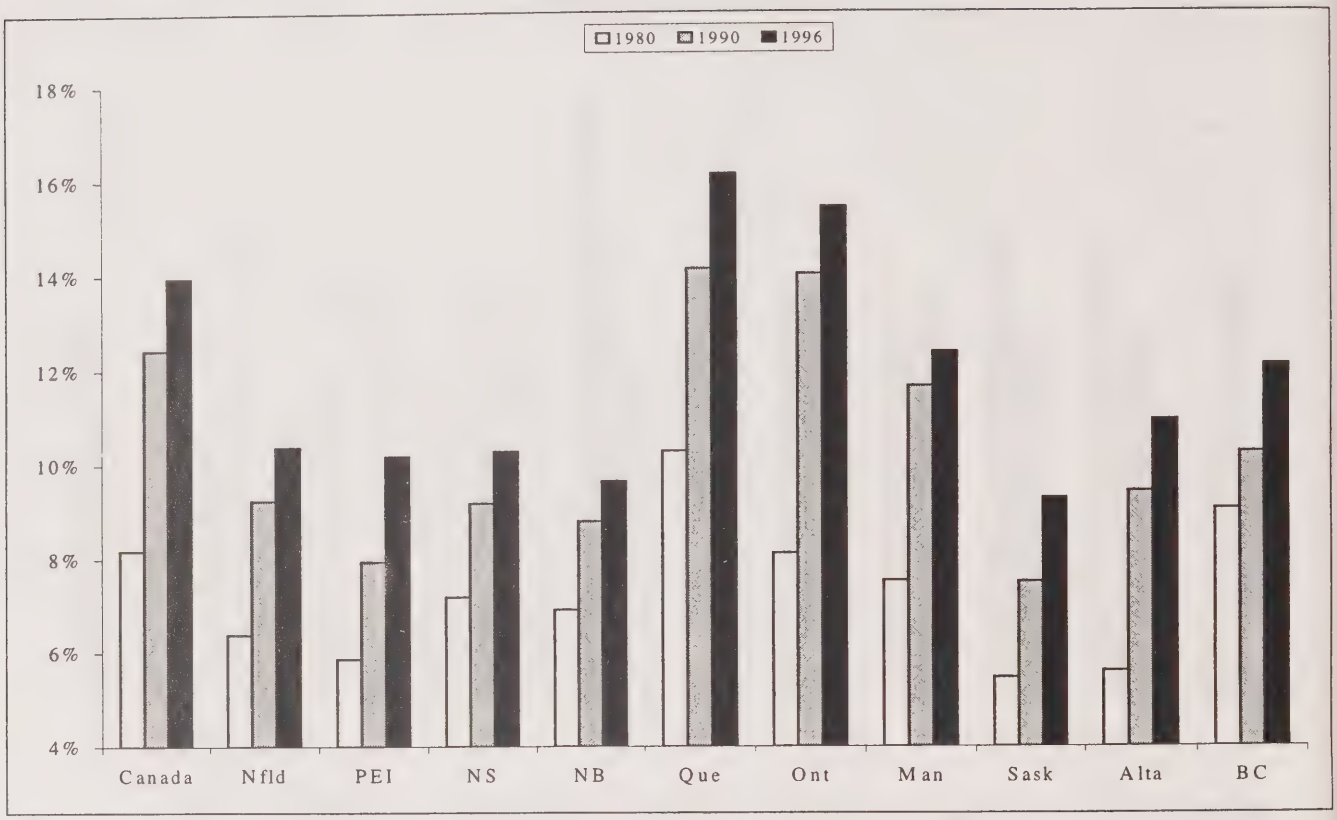


Payroll Taxes as Share of Federal and Provincial Government Revenues

For the country as a whole, revenues generated through payroll taxes paid by employers and employees accounted for 14% of all federal and provincial government revenues in 1996, up by 12% from 1990 at 12.4% and by over 70% from 1980 at 8.2% (see figure 3 and appendix table A4). Payroll taxes represent a more important source of government revenues in some provinces than in others. In 1996, payroll tax revenues amounted to 16.1% of all federal and provincial government revenues raised in Quebec and 15.4% in Ontario, compared to the low of 9.3% in Saskatchewan and 9.6% in New Brunswick. In the remaining provinces, the share of all federal and provincial government revenues accounted for by payroll tax revenues ranged from 10% to 12%.

Substantial differences in the growth of payroll taxes as a source of government revenues also exist across provinces. In the 1980s, payroll taxes raised in Ontario, Alberta and Manitoba underwent the fastest growth as a source of government revenues (55% to 73%). In the 1990s, those taxes collected in Prince Edward Island, Saskatchewan and British Columbia experienced the largest expansion (28%, 24% and 18%, respectively).

Figure 3: Payroll Taxes as a Share of Federal and Provincial Government Revenues, 1980, 1990 and 1996



The Effective Payroll Tax Rate

While average payroll taxes per employee show the changing picture of not only payroll taxes but also employment in the paid labour market, payroll taxes as a fraction of GDP reflect also the dynamic state of the overall economy, and payroll taxes as a share of government revenues illustrate the relative importance of the various revenue-generating means. They are no doubt all important aspects the analysis so far has covered. However, there is another important aspect for further analysis, and that is the earnings of employees and payrolls of businesses. They are, after all, the base on which tax amounts are calculated. Therefore, the analysis will not be satisfactory without an examination of the tax rate.

Unfortunately, the tax structure is complicated and analysis of the statutory tax rates is not very meaningful either across provinces or over time, for different bases or different rate-structures are used to calculate the amount of tax to be paid across different components. As noted in the previous section, the EI and C/QPP taxes are based on but not proportional to employees' earnings. The EI tax had a minimum earnings coverage requirement (tax floor) and a tax ceiling prior to 1997; while the floor was removed since 1997, the ceiling is still in force. The C/QPP tax has in place both a floor and a ceiling. For both federal taxes, the statutory tax rates only apply to the taxable range; earnings below the floor or above the ceiling are not taxed. From the point of view of employers, amounts of EI and C/QPP taxes can be affected not only by individual employee's earnings but also by the overall earnings mix — it is possible that tax liability can vary significantly across different businesses that have the same amount of payrolls.

The WC tax is based on total payrolls of the employer, but the applicable tax rate (for the same level of payroll) can differ from one WCB to another and from one industry to another, because of experience rating. The tax liability thus depends upon not only the level of payrolls but also the business' past usage of the system, where the business is located and the industrial mix of its activities.

Quebec's HSF was a flat-rated levy charged to the entire payroll without exemptions until 1999 when a series of rate reductions are introduced to provide tax relief to small and medium-sized businesses (total payrolls under $5 million); its training levy is also flat-rated, but relief to small and medium-sized businesses are provided with exemptions — employers with total payrolls below the threshold are exempted from the tax.

Manitoba's HPSETL has been "notch-rated" with an exemption to relieve small and medium-sized employers from the tax burden since 1984. Payrolls under the exemption are not taxed; payrolls under the "notch maximum" are assessed for only the "notch range" (the portion of payrolls in excess of the exemption) at the "notch rate"; only when payrolls exceed the "notch maximum" is the full payroll assessed at the full rate.

Ontario's EHT used to also cover the entire payroll with a series of graduated tax rates — employers with different levels of payrolls are assessed at different contribution rates. Since 1999, the EHT has become a fully flat-rated system with an exemption. Newfoundland's HPSET not only allows an exemption but also assesses employers in the renewable resource sector (fishing, farming and forestry) at a reduced rate.

Due to all of these differences along with the fact that the number of applicable taxes differs among provinces (Quebec has five; Manitoba, Ontario and Newfoundland four; the rest of the country three), legislated tax rates are not comparable among the four components either over time or across provinces. To overcome the difficulty associated with these incompatibilities, our analysis hence proceeds with the calculation and comparison of the effective payroll tax rates — total payroll tax revenues collected in each province expressed as a fraction of total wages and salaries. Thus, the same base is used for the calculation of the tax rate across all components, in all provinces, and for all years.

For the country as a whole, the total effective payroll tax rate amounted to $12.23 per $100 of wages and salaries in 1997. This is up by 25% from $9.82 in 1990 and by nearly 120% from $5.61 in 1980. This growth trend reflects both the introduction of four of the five provincial H/E/Training taxes in the 1980s and 1990s, and increases in existing taxes. There are substantial variations in both the level and growth of the effective payroll tax rates across components as well as among provinces.

Differentials across Components

The EI tax has been the largest component since the early 1980s. Total premiums collected from employees and employers amounted to $19.7 billion in 1997, accounting for 41% of total payroll tax revenues raised in the country for that year (Figure 4). From 1980 to 1997, the effective EI tax rate expanded by over 160% from $1.90 per $100 of wages and salaries in 1980 to $4.98 in 1997 (see Figure 5). The rate experienced two periods of rapid growth: following the 1981-1982

recession and during the 1990-1992 recession.[29] It also edged up slightly during the 1980s recovery and expansion period. The biggest decrease occurred in 1989 when the effective tax rate came down by $0.65 per $100 of wages and salaries (the statutory employee premium rate dropped from $2.35 per $100 of insurable earnings in 1989 to $1.95 in 1990). The rate decreased slightly in 1995 and 1996; but again edged up slightly in 1997 despite the drop in the statutory premium rate — likely the result of the abolishment of the minimum earnings coverage requirement (tax floor) in that year.

Figure 4: Distribution of Payroll Taxes among Components, 1997

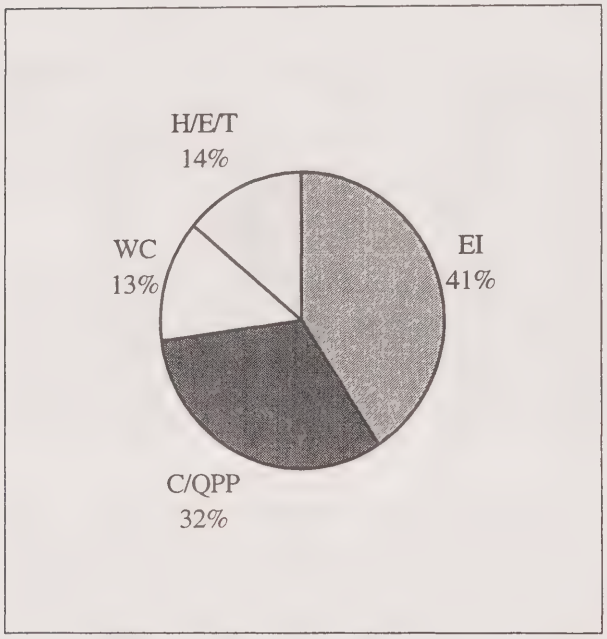
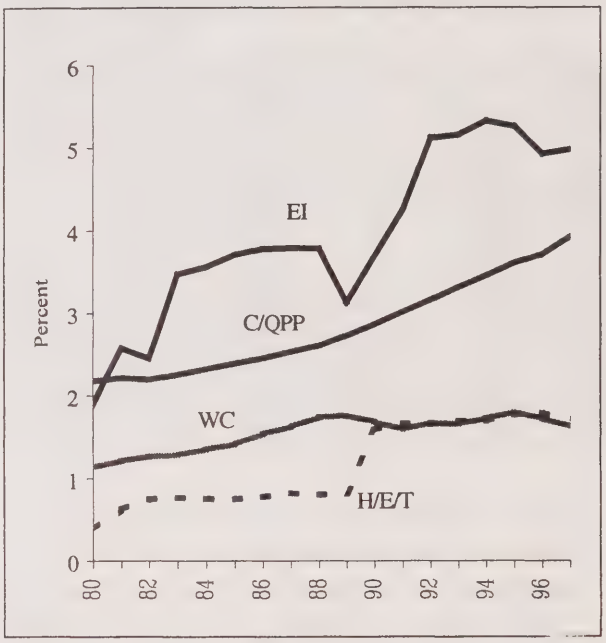


Figure 5: Effective Payroll Tax Rate by Component, 1980-1997



The C/QPP tax has been the second largest component throughout the period, accounting for 32% of total payroll tax revenues in 1997. The effective C/QPP tax rate has steadily risen from $2.18 per $100 of wages and salaries in 1980, to $2.39 in 1985 and $2.86 in 1990, further to $3.61 in 1995 and $3.92 in 1997. The WC tax has been the third largest component until 1990 and running neck-and-neck with the provincial H/E/Training tax ever since. In terms of growth, the effective WC tax rate rose very slowly (usually in the second decimal point) up until 1989, and then fluctuated around 1.6%-1.7% ever since.

The effective provincial H/E/Training tax rate amounted to $1.71 per $100 of wages and salaries in 1997. The largest hike happened in 1990 when Ontario and Newfoundland enacted the levy — the rate nearly doubled from 0.82% in 1989 to 1.59% in 1990. Another big increase took place in 1981 when Quebec doubled its HSF contribution rate (the only provincial tax at the time) — the overall effective provincial tax rate jumped from 0.39% in 1980 to 0.63% in 1981; it went further up to 0.75% in 1982 when Manitoba introduced the tax. The rate has levelled off for the rest of the years throughout the period (around 0.8% in the 1980s and 1.7% in the 1990s).

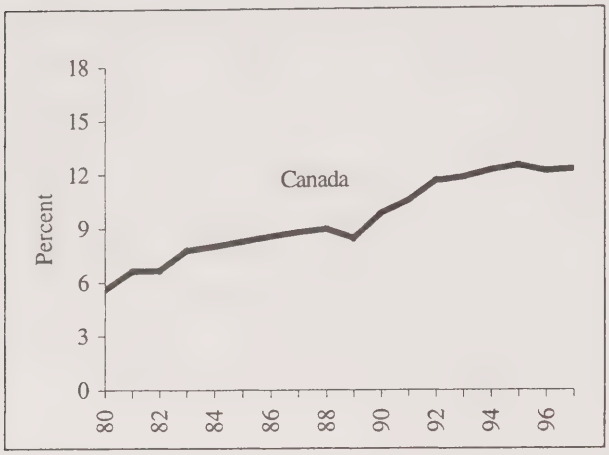
[29] As noted earlier, financing arrangements also changed in 1990 — the federal government completely withdrew its contribution and responsibility for the entire cost of running the system was shared between employees and employers.

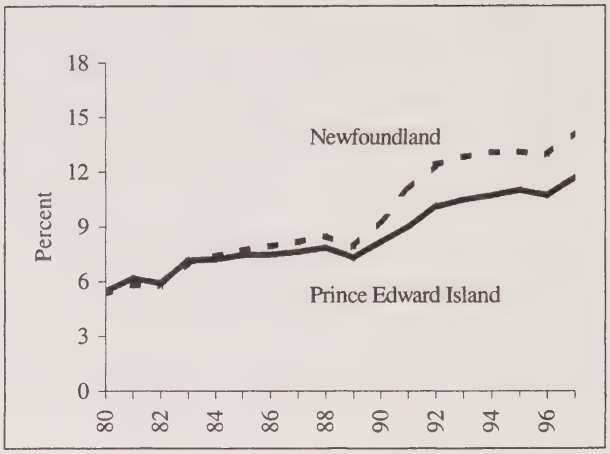
Differentials among Provinces

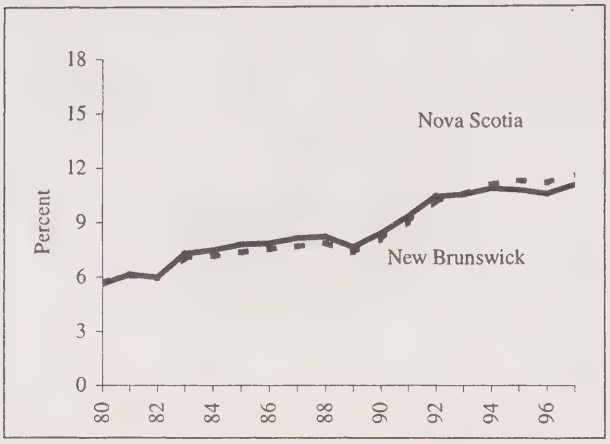
Quebec has had the highest effective payroll tax rate in the country throughout the 1980s and 1990s. For every $100 of wages and salaries, employees and employers in Quebec paid $16.08 as payroll taxes in 1997 to both the federal government and the provincial government to help fund EI, QPP, WC, health care, and training (Figure 6 and appendix Table A5). The second highest tax rate was observed in Newfoundland at $14.17 per $100 of wages and salaries, followed by Manitoba at $12.25 and Ontario at $11.78. This is not surprising since these are the four provinces that have provincial tax — Quebec has two while the other three have one each. Alberta had the lowest effective tax rate at $8.78 per $100 of wages and salaries, equivalent to only a little over 70% of the national rate or just 55% of the rate employees and employers paid in Quebec. Employees and employers in British Columbia and Saskatchewan also contributed at lower rates (around $10.70 for every $100 of wages and salaries).

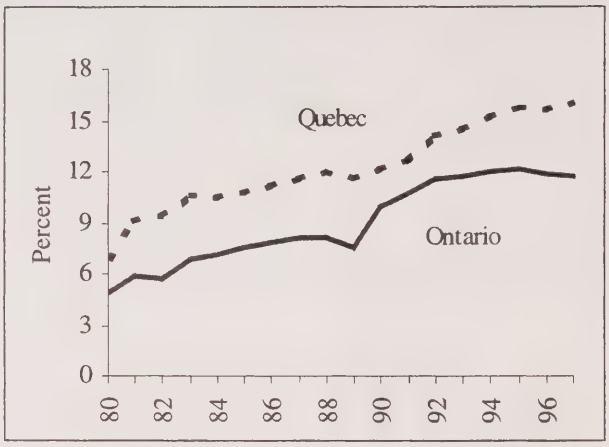
In terms of growth of the effective payroll tax rates, Newfoundland and Manitoba led the country with their rates rising by around 160% between 1980 and 1997; followed by Ontario and Quebec at 130%-140%. Alberta experienced the slowest growth at 64%. For the remaining five provinces, the rate expansion ranged from 92% in British Columbia to 112% in Prince Edward Island.

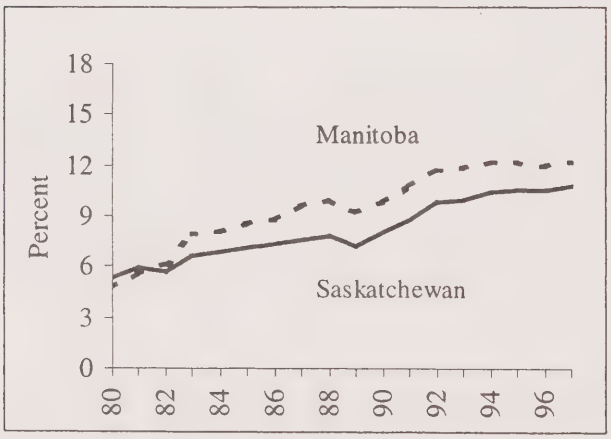
Figure 6: Effective Total Payroll Tax Rates, 1980-1997

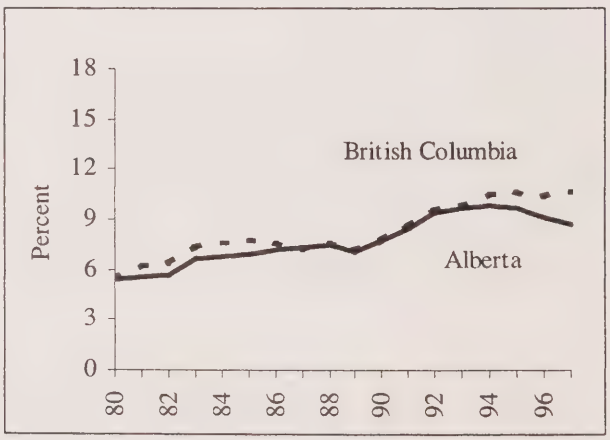












Effective Payroll Tax Rate Change and Role of Component

The contribution of each component to the growth of total effective payroll tax rates between 1980 and 1997 is shown in Table 8 for Canada as well as in each province. For the country as a whole, the total effective payroll tax rate expanded by nearly 120% in this period (rising from $5.61 per $100 of wages and salaries in 1980 to $12.23 in 1997, see appendix Table A5). Of this growth, 47% is due to rising EI premiums; 26% to increasing C/QPP contributions; 20% to increases in existing or enactment of new provincial payroll taxes for health care, post-secondary education, or training; the remaining 7% to increasing WC premiums.

Decade by decade, the expansion of EI premiums has also been the leading source of total effective payroll tax rate growth — responsible for 42% of the rate hike in the 1980s and 54% in the 1990s. The contribution of rising C/QPP contributions was relatively small in the 1980s (16%) but very significant in the 1990s (44%). On the contrary, the effects of provincial taxes were substantial in the 1980s (29%) but inconsequential in the 1990s (5%). WC premiums dropped slightly in the 1990s but accounted for 13% of the overall rate increase in the 1980s.

The role of each component in the growth of total effective payroll tax rates varies appreciably from one province to another. For the four provinces with the H/E/Training taxes, the share of the total rate increase attributable to rising EI premiums ranged from 35%-44% in the 1980s; and from 41%-65% in the 1990s. For Quebec, increases in HSF contributions and/or introduction of the training levy were the largest source of its total rate hike in the 1980s (37%) and third largest source in the 1990s (24%). For Ontario and Manitoba, the contribution of their provincial taxes was similar to that of EI premiums in the 1980s (around 34%). In the 1990s, both provinces' effective provincial tax rates edged down slightly. For Newfoundland, the enactment of the H/E tax accounted for 13% of its total rate increase between 1980 and 1990, and 20% in the 1990s. The effects of rising C/QPP contributions was around 15% in the 1980s in all four provinces; but significantly rose to one-third for Newfoundland and Quebec, 47% for Manitoba and 53% for Ontario in the 1990s. The role of WC premiums was generally minor in the 1980s and often negative in the 1990s.

For the six provinces without provincial taxes (other than WC), the contribution of growing EI premiums ranged from 64%-81% in the 1980s, and from 45%-72% in the 1990s. The share of rising C/QPP contributions was about 20%-30% in the 1980s; but substantially increased to 37%-48% in the 1990s — in particular, it reached 65% for Alberta. The effects of WC premiums were again relatively insignificant in the 1980s and often negative in the 1990s — the effective WC tax rate dropped by 15% for Ontario (from 1.83% in 1990 to 1.55% in 1997) and by 28% for Alberta (from 1.32% in 1990 to 0.95% in 1997, see appendix table A5).

To sum up, rising EI premiums have consistently been the leading contributor to total effective payroll tax rate growth in both the 1980s and 1990s both in the country as a whole and in each province. The effects of increasing C/QPP contributions were relatively small in the 1980s but rose significantly in the 1990s. For those with provincial taxes, these taxes were an important source of their effective payroll tax rate growth in the 1980s and remained so for Newfoundland and Quebec in the 1990s. The contribution from WC premiums was small in the 1980s and often negative in the 1990s.

Table 8: Growth of Effective Payroll Tax Rates and Contribution of Components, 1980-1997

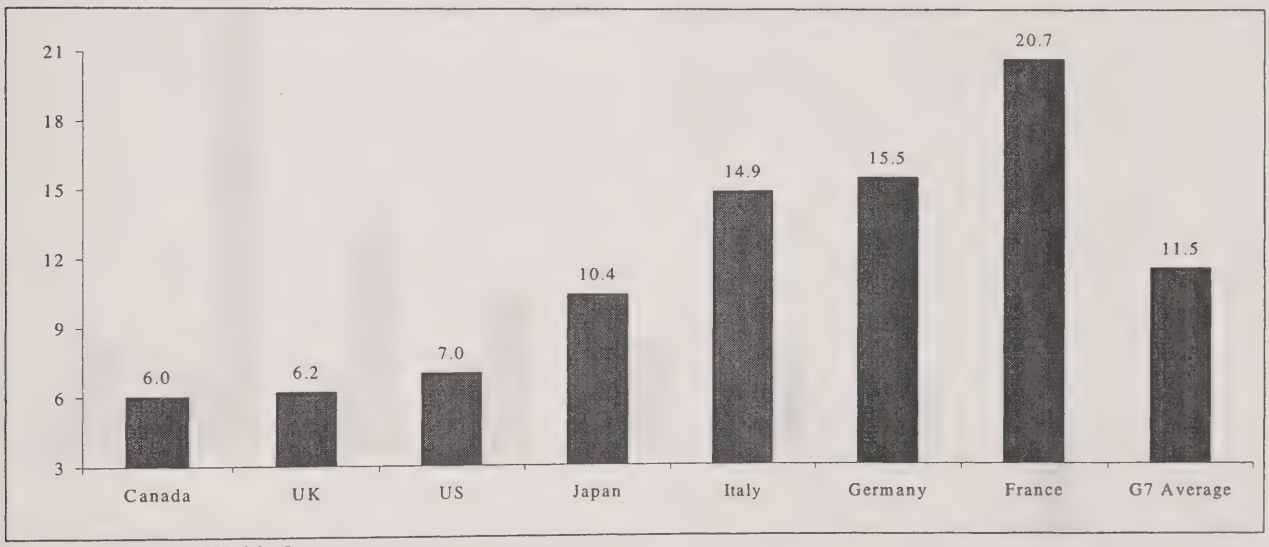
	Canada	Nfld	PEI	NS	NB	Que	Ont	Man	Sask	Alta	BC
1980-1997: Percentage point rate change	6.63	8.85	6.18	5.91	5.44	9.05	6.90	7.47	5.36	3.44	5.14
% Contribution											
EI	46.5	42.1	56.8	57.2	62.1	38.7	42.8	45.0	58.7	70.6	60.5
C/QPP	26.3	24.3	33.7	31.4	33.9	22.8	24.3	25.2	31.5	34.2	35.1
WC	7.3	16.7	9.5	11.4	3.9	7.2	9.0	8.5	9.8	-4.8	4.4
H/E/Training	20.0	16.9	n.a.	n.a.	n.a.	31.3	23.9	21.2	n.a.	n.a.	n.a.
1980-1990: Percentage point rate change	4.22	4.04	2.67	2.35	2.75	5.17	5.03	5.07	2.62	2.44	2.20
% Contribution											
EI	42.4	44.0	68.1	72.8	63.9	36.8	34.5	38.4	72.0	70.0	80.8
C/QPP	16.2	14.5	23.3	22.8	20.3	14.9	13.7	14.8	25.6	21.5	31.3
WC	13.0	28.6	8.6	4.4	15.7	11.4	17.8	14.0	2.4	8.5	-12.1
H/E/Training	28.5	12.9	n.a.	n.a.	n.a.	37.0	34.0	32.9	n.a.	n.a.	n.a.
1990-1997: Percentage point rate change	2.41	4.81	3.50	3.55	2.68	3.88	1.87	2.40	2.73	1.00	2.93
% Contribution											
EI	53.6	40.5	48.2	46.8	60.3	41.2	65.3	59.0	46.0	72.0	45.2
C/QPP	43.9	32.5	41.7	37.1	47.9	33.3	52.7	47.3	37.1	65.2	37.9
WC	-2.7	6.8	10.2	16.1	-8.2	1.7	-14.8	-2.9	17.0	-37.2	16.9
H/E/Training	5.2	20.2	n.a.	n.a.	n.a.	23.8	-3.2	-3.4	n.a.	n.a.	n.a.

4. An International Perspective

Governments raise tax revenues through many different forms,[30] and some rely upon some forms more heavily than others. A country's payroll tax burden can be assessed by expressing payroll tax revenues as a fraction of total economic activities (e.g., the gross domestic product); its degree of reliance on payroll taxes (relative to other forms of taxation) can be examined by looking at the share of total tax revenues accounted for by payroll taxes. By both measures, how do Canadian payroll taxes compare to that of other countries? While extensive international comparisons are found in Kesselman (1997),[31] what follows updates payroll taxation usage among OECD member countries to 1996, the most recent year for which comparable data are available at time of writing.

Look at the payroll tax burden first. According to data compiled by the OECD, total payroll tax revenues[32] in Canada amounted to 6.0% of GDP[33] in 1996 (figure 7). That was the lowest among the world's richest countries — slightly lower than that of the United Kingdom (at 6.2% of GDP), 14% lower than that of the United States (at 7.0% of GDP), 42% lower than that of Japan (at 10.4% of GDP), equivalent to around 40% of that of Italy and Germany (at 14.9% and 15.5% of GDP, respectively), and only 29% of that of France (at 20.7% of GDP).

Figure 7: Payroll Taxes as a Percentage of GDP in G7 Countries, 1996



Source: See end of Table 9.

30 The OECD classification system divides total taxation into six main components: Class 1000 — Taxes on income, profits and capital gains; Class 2000 — Social security contributions; Class 3000 — Taxes on payroll and workforce; Class 4000 — Taxes on property; Class 5000 — Taxes on goods and services; and Class 6000 — Other taxes.

31 Supra footnote 8, section entitled "Comparative Use of Payroll Taxes".

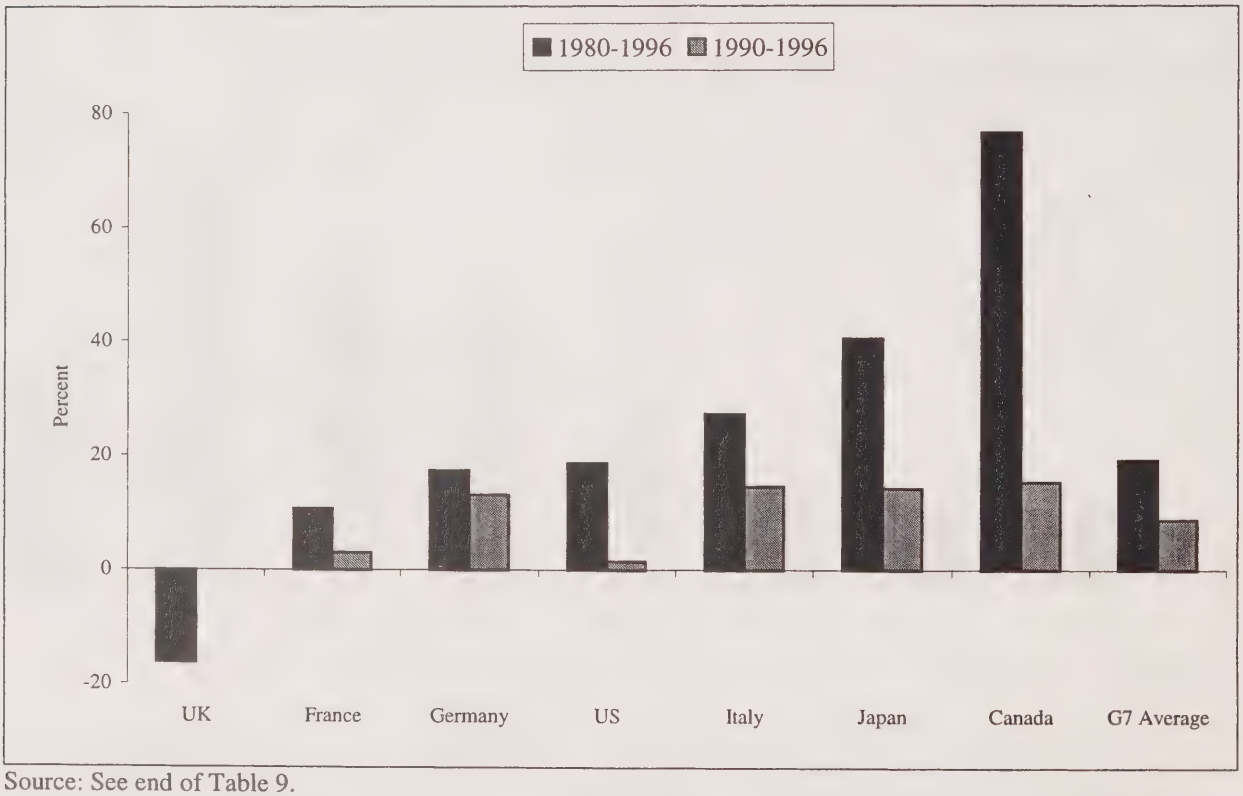
32 Given that some countries have only class 2000 while others have both classes 2000 and 3000, both classes are combined here as a single category, "payroll taxes", to improve cross-country comparability. Note that the great bulk of payroll-type taxes are placed in the OECD's Class 2000 rather than Class 3000.

33 Our calculations showed slightly lower payroll taxes revenues in 1996 (56% Table A3). This is likely due to data differences.

When the comparison is extended to all OECD member states, Canada's payroll tax burden also stands out as one of the lowest. It was about 60% of the OECD average (at 10.1% of GDP) in 1996 and ranked the 9th lowest among the 29 member states, higher only than that of New Zealand, Denmark, Australia, Korea, Mexico, Iceland, Turkey, and Ireland (see Table 9).

However, as Figure 8 and Table 9 show, growth patterns of the tax burden tells a different story. As a proportion of GDP, Canada's payroll taxes expanded by 77%, rising from 3.4% of GDP in 1980 to 6.0% in 1996. That was four times the average growth of 19.2% experienced by the G7 member countries (from 9.7% of GDP in 1980 to 11.5% in 1996), and nearly four times the average growth of 19.9% experienced by 25 OECD member nations for which both the tax has been applicable and data have been available since 1980 (from 8.4% of GDP in 1980 to 10.1% in 1996).[34] In fact, Canada's growth rate was the third highest among these 25 countries, being surpassed only by that of Korea and Denmark. Growth since 1990 demonstrates a very similar picture. Canada's expansion was the fastest among the G7 members and the fifth fastest among 26 OECD members, slower only than that of Finland, Switzerland, Iceland, and Korea.

Figure 8: Growth of Payroll Taxes as a Percentage of GDP in G7 Countries, 1980-1996



Source: See end of Table 9.

Turn to the relative extent of reliance on payroll taxes now. The contribution of payroll taxes to Canada's total taxation is one of the lowest among the world's leading industrialized countries. As seen in Table 10, total payroll tax revenues in Canada accounted for 16.3% of total taxation in 1996. That share was the lowest and amounted to only slightly over half of the 30.7% of total taxation average among the G7 countries. For example, the United States collected nearly a

[34] For Czech Republic, Hungary, Poland and New Zealand, either the tax has not been applicable or data have not been available for the entire period.

quarter of its total tax revenues through payroll taxes. France has the highest degree of reliance on payroll taxes — 45% of its total tax revenues were raised through payroll taxes. Canada's payroll tax share of total taxation was the 9th lowest and equivalent to under two-thirds of the 25.8% of total taxation average among the 29 OECD member countries.

As a fraction of total taxation, Canada's payroll taxes expanded by 55%, increasing from 10.5% of total taxation in 1980 to 16.3% in 1996. That growth rate was by far the highest among the G7 countries — over seven times the average growth rate of 7.4% (28.6% of total taxation in 1980 to 30.7% in 1996). The importance of payroll taxes as a source of tax revenues during this period declined by 17% in the United Kingdom (from 20.9% of total taxation to 17.3%) and 11% in Italy (from 38.6% of total taxation to 34.4%). Among 25 OECD member countries, Canada's growth rate for this period was the third highest, lower only than that of Denmark and Korea. Since 1990, Canada's reliance on payroll taxes grew by 14%, the second fastest growth among the G7 countries — equivalent to 54% of Japan's growth rate (at 26%). Among the 26 comparable countries, Canada's growth rate since 1990 ranked the 6th highest — being surpassed by Switzerland, Finland, Japan, Iceland, Korea.

To sum up, Canada's payroll taxes have historically been one of the lowest among the world's leading industrialized countries. This is true whether they are expressed as a proportion of the gross domestic product or as a fraction of total tax revenues. Despite one of the fastest growth in recent years, payroll taxes remain much lower in Canada than in many of these countries.

Table 9: Payroll Taxes[a] as a Percentage of GDP in OECD countries, Selected Years, 1980-1996

		Percent of GDP					Percent Growth		
	Rank in 1996	1980	1985	1990	1995	1996	1980-1996	1980-1990	1990-1996
New Zealand	1	n.a.	0.2	0.7	0.4	0.3	n.a.	n.a.	-57.1
Denmark	2	0.8	2.3	1.8	1.8	1.8	125.0	125.0	0.0
Australia	3	1.4	1.4	1.9	2.1	2.1	50.0	35.7	10.5
Korea	4	0.3	0.4	1.1	1.9	2.2	633.3	266.7	100.0
Mexico	5	2.5	2.0	2.5	2.9	2.5	0.0	0.0	0.0
Iceland	6	1.7	1.7	2.1	2.5	2.8	64.7	23.5	33.3
Turkey	7	2.5	2.2	3.9	2.7	4.0	60.0	56.0	2.6
Ireland	8	4.8	6.3	5.7	5.3	4.9	2.1	18.8	-14.0
Canada	9	3.4	4.5	5.2	5.9	6.0	76.5	52.9	15.4
United Kingdom	10	7.4	6.7	6.2	6.3	6.2	-16.2	-16.2	.0.0
United States	11	5.9	6.6	6.9	7.0	7.0	18.6	16.9	1.4
Portugal	12	8.1	7.9	8.4	9.4	9.0	11.1	3.7	7.1
Norway	13	9.0	9.0	11.0	9.7	9.6	6.7	22.2	-12.7
Japan	14	7.4	8.4	9.1	10.4	10.4	40.5	23.0	14.3
Luxembourg	15	12.5	12.6	11.8	11.8	11.9	-4.8	-5.6	0.8
Spain	16	11.6	11.8	12.1	12.3	12.1	4.3	4.3	0.0
Finland	17	7.3	7.3	9.9	12.7	12.4	69.9	35.6	25.3
Greece	18	10.2	13.0	11.5	12.9	12.7	24.5	12.7	10.4
Switzerland	19	9.0	9.9	10.0	12.4	13.0	44.4	11.1	30.0
Poland	20	n.a.	n.a.	n.a.	13.3	13.4	n.a.	n.a.	n.a.
Hungary	21	n.a.	n.a.	n.a.	15.6	13.6	n.a.	n.a.	n.a.
Belgium	22	13.3	15.1	14.8	15.2	14.9	12.0	11.3	0.7
Italy	23	11.7	12.2	13.0	13.2	14.9	27.4	11.1	14.6
Germany	24	13.2	13.9	13.7	15.5	15.5	17.4	3.8	13.1
Sweden	25	15.4	14.4	16.5	15.5	16.8	9.1	7.1	1.8
Czech Republic	26	n.a.	n.a.	n.a.	16.9	17.0	n.a.	n.a.	n.a.
Netherlands	27	17.2	19.5	16.7	18.3	17.1	-0.6	-2.9	2.4
Austria	28	15.3	15.9	16.0	18.1	18.1	18.3	4.6	13.1
France	29	18.7	20.2	20.1	20.4	20.7	10.7	7.5	3.0
OECD average[b]		8.4	8.7	8.9	10.1	10.1	19.9	6.2	12.9
G7 average		9.7	10.4	10.6	11.2	11.5	19.2	9.6	8.8

Note: [a] Sum of social security contributions (class 2000) and taxes on payroll and workforce (class 3000).
[b] Excluding countries for which either the tax is not applicable or data are not available.

n.a.: Not applicable/not available.

Source: Author's calculation from OECD (Paris, 1998), *Revenue Statistics, 1965-1997*, Tables 14 and 20.

Table 10: Payroll Taxes[a] as a Percentage of Total Taxation in OECD countries, Selected Years, 1980-1996

		Percentage of Total Taxation					Percent Growth		
	Rank in 1996	1980	1985	1990	1995	1996	1980-1996	1980-1990	1990-1996
New Zealand	1	n.a.	0.7	1.8	0.9	1.0	n.a.	n.a.	-44.4
Denmark	2	1.8	4.6	3.7	3.6	3.5	94.4	105.6	-5.4
Australia	3	5.0	4.7	6.1	6.8	6.7	34.0	22.0	9.8
Iceland	4	6.0	6.0	6.8	8.1	8.7	45.0	13.3	27.9
Korea	5	1.6	2.0	5.7	8.4	9.5	493.8	256.3	66.7
Ireland	6	14.5	17.1	16.1	15.6	14.6	0.7	11.0	-9.3
Mexico	7	15.1	12.1	14.8	17.2	15.6	3.3	-2.0	5.4
Turkey	8	14.0	14.3	19.7	12.1	15.8	12.9	40.7	-19.8
Canada	9	10.5	13.5	14.3	16.3	16.3	55.2	36.2	14.0
United Kingdom	10	20.9	17.8	17.1	17.6	17.3	-17.2	-18.2	1.2
Norway	11	21.1	20.8	26.3	23.5	23.3	10.4	24.6	-11.4
United States	12	21.9	25.2	25.8	25.1	24.7	12.8	17.8	-4.3
Portugal	13	32.1	28.4	27.2	27.0	25.7	-19.9	-15.3	-5.5
Finland	14	19.6	17.9	21.7	27.5	25.8	31.6	10.7	18.9
Luxembourg	15	29.7	26.8	27.3	26.8	26.6	-10.4	-8.1	-2.6
Greece	16	34.7	37.1	30.9	31.8	31.4	-9.5	-11.0	1.6
Poland	17	n.a.	n.a.	n.a.	31.2	31.8	n.a.	n.a.	n.a.
Belgium	18	30.4	32.1	33.6	33.1	32.3	6.3	10.5	-3.9
Sweden	19	31.4	28.7	29.7	31.3	32.3	2.9	-5.4	8.8
Hungary	20	n.a.	n.a.	n.a.	36.2	33.9	n.a.	n.a.	n.a.
Italy	21	38.6	35.3	33.2	32.0	34.4	-10.9	-14.0	3.6
Spain	22	48.6	41.3	35.4	36.2	35.9	-26.1	-27.2	1.4
Japan	23	29.1	30.3	29.0	36.3	36.5	25.4	-0.3	25.9
Switzerland	24	30.9	32.0	32.3	37.0	37.4	21.0	4.5	15.8
Netherlands	25	38.1	44.3	37.4	41.8	39.6	3.9	-1.8	5.9
Germany	26	34.5	36.5	37.5	39.4	40.6	17.7	8.7	8.3
Austria	27	37.9	37.5	38.9	42.9	41.1	8.4	2.6	5.7
Czech Republic	28	n.a.	n.a.	n.a.	40.8	41.9	n.a.	n.a.	n.a.
France	29	44.9	45.4	46.0	45.7	45.4	1.1	2.4	-1.3
OECD average		24.5	23.6	23.8	25.9	25.8	5.4	-3.0	8.7
G7 average		28.6	29.1	29.0	30.3	30.7	7.4	1.2	6.1

Note: [a] Sum of social security contributions (class 2000) and taxes on payroll and workforce (class 3000).
[b] Excluding countries for which either the tax is not applicable or data are not available.
n.a.: Not applicable/not available.
Source: Author's calculation from OECD (Paris, 1998), *Revenue Statistics, 1965-1997*, Tables 15 and 21.

5. Summary

There are currently a total of nine payroll taxes in Canada: two nation-wide by the federal government, one nation-wide by all provincial/territorial governments, and six provincial/territorial by five provincial/territorial governments. The three national payroll taxes are: the employment insurance premiums levied on employees and employers; the Canada/Quebec pension plan contributions charged on employees, employers and the self-employed; and the workers' compensation premiums levied on employers only. The six provincial/territorial payroll taxes are: the health services fund contributions levied mostly on employers by Quebec; the health and post-secondary education tax levy charged exclusively on employers by Manitoba; the employer health tax of Ontario; the health and post-secondary education tax levied on employers only by Newfoundland; the payroll tax levied on employees only by Northwest Territories; and the employer contributions to vocational training charged on employers only by Quebec.

This paper has reviewed the structure and policy parameters of the Canadian payroll tax system. It has also documented empirical evidence on its level and growth in recent years. In addition, it has compared payroll taxes among the OECD member countries. The following summarizes the main findings.

- Payroll taxes in Canada have grown considerably since the early 1980s, constituting an increasingly important source of revenues for both the federal and provincial governments. However, the rapid expansion observed in earlier years has in large part slowed down in the early 1990s. Payroll tax revenues collected from employees and employers in the country have stabilized at around 5.7% of GDP or 14.0% of total federal and provincial government revenues since 1992; the effective total payroll tax rate has levelled off at around $12.20 for every $100 of wages and salaries since 1994.

- The structure, level, growth, and role of each component of payroll taxes vary considerably from one province to another. Yet, EI premiums have been the largest component of these taxes in every province in both the 1980s and the 1990s, regardless of whether there are provincial payroll taxes; rising EI premiums have also consistently been the leading contributor to the expansion of total payroll taxes during this period.

- Despite rapid growth in the 1980s and early 1990s, Canadian payroll taxes remain one of the lowest in the world's major developed economies. According to data complied by the OECD, total payroll tax revenues in Canada amounted to 6.0% of GDP in 1996 — that is 14% lower than that of the United States; the lowest in the G7 nations; and the 9th lowest among the 29 OECD member states.

Appendix

Table A1: Payroll Taxes by Component, 1980-1997

	Canada	Nfld	PEI	NS	NB	Que	Ont	Man	Sask	Alta	BC
						Thousands of dollars					
1980											
EI	2,959,401	47,630	10,270	87,118	67,625	749,895	1,138,548	116,169	90,785	299,695	351,665
C/QPP	3,397,716	53,878	11,474	96,052	76,196	857,888	1,277,350	129,916	105,192	366,530	423,240
WC	1,769,093	15,052	3,572	37,289	26,950	536,795	569,266	31,388	48,961	176,148	323,672
H/E	601,966					601,966					
Total	8,728,176	116,560	25,316	220,459	170,771	2,746,544	2,985,164	277,473	244,938	842,373	1,098,577
1981											
EI	4,591,250	72,475	15,146	132,789	102,509	1,141,387	1,762,899	179,385	142,181	492,895	549,585
C/QPP	3,947,398	61,638	12,694	110,282	85,964	971,432	1,483,638	149,798	123,174	450,084	498,694
WC	2,163,086	20,948	4,092	40,012	32,032	685,819	649,966	34,137	53,294	226,422	416,364
H/E	1,119,347					1,119,347					
Total	11,821,081	155,061	31,932	283,083	220,505	3,917,985	3,896,503	363,320	318,649	1,169,401	1,464,643
1982											
EI	4,658,724	74,199	15,794	136,414	104,235	1,130,498	1,809,751	184,358	146,981	511,579	544,915
C/QPP	4,174,432	66,696	13,834	118,292	92,062	1,001,974	1,593,298	161,258	134,274	484,328	508,416
WC	2,413,703	22,791	3,891	45,152	35,869	690,440	753,538	34,683	52,831	295,158	479,350
H/E	1,423,403					1,367,903		55,500			
Total	12,670,262	163,686	33,519	299,858	232,166	4,190,815	4,156,587	435,799	334,086	1,291,065	1,532,681
1983											
EI	6,889,714	109,788	23,631	203,134	157,296	1,673,628	2,715,730	274,908	221,170	721,027	789,401
C/QPP	4,475,360	71,394	14,978	128,438	100,218	1,083,972	1,734,712	174,078	146,762	487,728	533,080
WC	2,554,717	27,520	4,591	49,190	43,887	735,161	835,904	38,180	59,363	288,370	472,551
H/E	1,530,926					1,422,826		108,100			
Total	15,450,717	208,702	43,200	380,762	301,401	4,915,587	5,286,346	595,266	427,295	1,497,125	1,795,032

(continued)

Table A1 (continued): Payroll Taxes by Component, 1980-1997

		Canada	Nfld	PEI	NS	NB	Que	Ont	Man	Sask	Alta	BC
							Thousands of dollars					
1984												
	EI	7,606,246	118,622	26,734	228,993	171,267	1,860,254	3,052,053	302,484	241,533	761,109	843,199
	C/QPP	4,961,374	76,846	17,064	145,726	109,318	1,213,310	1,961,144	192,998	159,952	514,502	570,514
	WC	2,894,343	34,671	4,611	50,904	48,391	726,932	1,123,786	49,813	63,479	280,671	511,085
	H/E	1,622,961					1,511,861		111,100			
	Total	17,084,924	230,139	48,409	425,623	328,976	5,312,357	6,136,983	656,395	464,964	1,556,282	1,924,798
1985												
	EI	8,531,613	129,447	29,894	256,154	189,115	2,074,947	3,461,062	335,702	266,662	856,018	932,611
	C/QPP	5,495,834	82,186	18,678	160,988	119,302	1,332,882	2,210,404	211,164	173,488	568,160	618,582
	WC	3,245,313	37,232	4,956	55,503	53,681	784,834	1,423,146	69,562	70,144	268,036	478,219
	H/E	1,720,760					1,601,860		118,900			
	Total	18,993,520	248,865	53,528	472,645	362,098	5,794,523	7,094,612	735,328	510,294	1,692,214	2,029,412
1986												
	EI	9,278,306	137,400	32,134	275,019	204,614	2,247,487	3,831,873	362,374	283,053	901,370	1,002,982
	C/QPP	6,018,558	87,626	20,230	173,732	129,850	1,448,318	2,472,008	230,100	184,598	600,058	672,038
	WC	3,769,571	43,350	5,409	62,115	59,130	980,628	1,738,871	84,530	71,722	302,477	421,339
	H/E	1,914,160					1,787,560		126,600			
	Total	20,980,595	268,376	57,773	510,866	393,594	6,463,993	8,042,752	803,604	539,373	1,803,905	2,096,359
1987												
	EI	10,119,938	151,671	35,367	295,932	223,335	2,453,769	4,233,886	387,456	297,067	942,502	1,098,951
	C/QPP	6,751,112	100,186	23,038	192,808	145,340	1,637,742	2,810,532	252,596	198,776	639,626	750,468
	WC	4,342,380	50,072	5,694	70,773	68,772	1,233,180	2,123,042	104,983	80,522	281,978	323,364
	H/E	2,198,571					2,011,071		187,500			
	Total	23,412,001	301,929	64,099	559,513	437,447	7,335,762	9,167,460	932,535	576,365	1,864,106	2,172,783
1988												
	EI	11,076,077	166,200	38,897	320,892	242,822	2,693,664	4,658,294	410,921	309,965	1,026,895	1,207,527
	C/QPP	7,630,694	113,136	26,332	215,822	164,106	1,848,008	3,199,024	276,284	214,710	720,736	852,536
	WC	5,094,145	64,151	7,665	78,872	74,542	1,473,844	2,410,449	128,505	93,363	320,803	441,951
	H/E	2,351,443					2,152,243		199,200			
	Total	26,152,359	343,487	72,894	615,586	481,470	8,167,759	10,267,767	1,014,910	618,038	2,068,434	2,502,014

(continued)

Table A1 (continued): Payroll Taxes by Component, 1980-1997

	Canada	Nfld	PEI	NS	NB	Que	Ont	Man	Sask	Alta	BC
	Thousands of dollars										
1989											
EI	9,908,453	147,254	34,637	285,307	218,703	2,366,609	4,201,080	357,766	267,046	915,735	1,114,315
C/QPP	8,637,236	127,244	29,890	243,402	187,310	2,052,794	3,652,364	304,424	231,974	810,630	997,204
WC	5,568,882	70,304	9,074	85,336	82,413	1,567,888	2,636,870	130,553	91,442	374,265	520,737
H/E	2,582,871					2,391,571		191,300			
Total	26,697,442	344,802	73,601	614,045	488,426	8,378,862	10,490,314	984,043	590,462	2,100,630	2,632,256
1990											
EI	12,213,831	180,449	43,488	350,983	269,220	2,897,695	5,112,394	441,339	331,509	1,159,845	1,426,910
C/QPP	9,487,646	138,996	33,436	267,130	207,098	2,247,110	3,953,654	333,878	254,686	915,444	1,136,214
WC	5,574,210	84,130	10,793	94,333	89,138	1,486,256	2,595,999	139,554	97,121	425,861	551,025
H/E	5,260,617	23,800				2,617,197	2,433,120	186,500			
Total	32,536,304	427,375	87,717	712,446	565,456	9,248,258	14,095,167	1,101,271	683,316	2,501,150	3,114,149
1991											
EI	14,293,342	211,677	50,875	411,384	317,655	3,389,090	5,921,681	510,009	394,721	1,377,415	1,708,836
C/QPP	10,133,236	148,532	36,010	285,656	222,060	2,395,290	4,174,874	353,902	278,110	993,998	1,244,804
WC	5,353,126	103,658	11,845	107,556	100,226	1,256,238	2,505,000	153,262	103,922	435,847	575,572
H/E	5,588,596	47,800				2,702,396	2,649,700	188,700			
Total	35,368,300	511,667	98,730	804,596	639,941	9,743,014	15,251,255	1,205,873	776,753	2,807,260	3,529,212
1992											
EI	17,440,035	250,611	61,639	499,260	388,474	4,126,371	7,177,349	630,970	480,513	1,670,078	2,154,770
C/QPP	10,774,220	153,642	37,888	303,454	237,246	2,542,332	4,398,850	380,656	294,736	1,052,804	1,372,612
WC	5,679,110	98,438	12,273	115,515	105,405	1,486,342	2,528,000	149,014	107,070	432,066	644,987
H/E	5,638,749	63,200				2,823,149	2,560,600	191,800			
Total	39,532,114	565,891	111,800	918,229	731,125	10,978,194	16,664,799	1,352,440	882,319	3,154,948	4,172,369
1993											
EI	17,790,432	253,637	63,060	504,879	398,263	4,210,833	7,252,803	639,045	486,873	1,718,703	2,262,336
C/QPP	11,428,812	161,022	40,334	318,768	253,076	2,692,402	4,627,092	401,284	309,656	1,129,806	1,495,372
WC	5,706,340	106,967	14,200	128,098	99,034	1,576,771	2,283,000	138,799	102,238	528,133	729,100
H/E	5,835,965	70,000				2,928,000	2,645,000	192,965			
Total	40,761,549	591,626	117,594	951,745	750,373	11,408,006	16,807,895	1,372,093	898,767	3,376,642	4,486,808

(continued)

Table A1 (concluded): Payroll Taxes by Component, 1980-1997

	Canada	Nfld	PEI	NS	NB	Que	Ont	Man	Sask	Alta	BC
	Thousands of dollars										
1994											
EI	18,836,311	269,153	67,173	520,231	418,627	4,455,043	7,647,792	673,371	517,843	1,813,755	2,453,323
C/QPP	12,210,756	173,532	43,746	330,368	267,734	2,885,740	4,914,474	426,364	331,534	1,205,074	1,632,190
WC	6,079,970	105,835	13,362	143,094	101,512	1,683,202	2,351,000	141,014	115,813	546,951	878,187
H/E	5,985,641	75,000				3,079,000	2,640,000	191,641			
Total	43,112,678	623,520	124,281	993,693	787,873	12,102,985	17,553,266	1,432,390	965,190	3,565,780	4,963,700
1995											
EI	19,142,246	269,458	70,382	514,761	424,978	4,504,298	7,806,029	682,810	526,819	1,823,211	2,519,499
C/QPP	13,122,824	182,846	49,394	346,638	288,338	3,085,504	5,302,130	458,700	356,882	1,283,366	1,769,026
WC	6,543,779	105,864	15,794	149,451	94,490	1,800,846	2,653,000	156,828	133,165	449,740	984,601
H/E	6,425,538	77,300				3,461,000	2,695,000	192,238			
Total	45,234,387	635,468	135,570	1,010,850	807,806	12,851,648	18,456,159	1,490,576	1,016,866	3,556,317	5,273,126
1996											
EI	18,378,771	248,230	71,158	488,971	408,994	4,336,632	7,437,309	661,737	514,658	1,776,053	2,435,030
C/QPP	13,846,032	185,082	53,978	358,608	302,086	3,238,482	5,582,922	483,612	382,300	1,375,336	1,883,626
WC	6,422,192	102,860	17,983	153,098	91,771	1,772,317	2,610,000	156,164	146,788	371,436	999,775
H/E	6,650,797	71,600				3,612,000	2,772,000	195,197			
Training	16,100					16,100					
Total	45,313,892	607,772	143,119	1,000,677	802,851	12,975,531	18,402,231	1,496,710	1,043,746	3,522,825	5,318,431
1997											
EI	19,697,904	274,932	72,979	532,601	437,813	4,647,255	8,000,448	705,345	545,079	1,892,129	2,589,322
C/QPP	15,516,458	214,708	58,162	410,516	339,892	3,648,154	6,256,874	542,038	423,896	1,530,010	2,092,208
WC	6,402,588	101,000	17,308	155,000	85,984	1,737,484	2,573,000	154,923	169,878	417,107	990,904
H/E	6,758,193	69,600				3,737,000	2,743,000	208,593			
Training[1]	15,900					15,900					
Total	48,391,043	660,240	148,449	1,098,117	863,689	13,785,793	19,573,322	1,610,899	1,138,853	3,839,246	5,672,434

[1] — Preliminary estimate.

Table A2: Average Payroll Taxes per Wage and Salary Worker, 1980-1997

	Canada	Nfld	PEI	NS	NB	Que	Ont	Man	Sask	Alta	BC
						1997 dollars[1]					
1980	1,656	1,338	1,266	1,408	1,382	2,042	1,467	1,303	1,455	1,642	1,805
1981	1,967	1,607	1,434	1,601	1,588	2,615	1,671	1,511	1,656	1,917	2,087
1982	2,020	1,592	1,410	1,620	1,612	2,747	1,688	1,700	1,601	1,984	2,148
1983	2,335	1,951	1,596	1,919	1,967	3,011	2,031	2,184	1,912	2,262	2,428
1984	2,431	2,073	1,726	1,972	2,055	3,047	2,190	2,259	1,991	2,291	2,520
1985	2,561	2,191	1,785	2,155	2,124	3,140	2,385	2,464	2,051	2,351	2,553
1986	2,661	2,242	1,834	2,203	2,175	3,316	2,521	2,560	2,091	2,393	2,452
1987	2,764	2,358	1,905	2,258	2,228	3,507	2,645	2,802	2,127	2,379	2,361
1988	2,866	2,394	2,020	2,281	2,269	3,635	2,746	2,886	2,165	2,480	2,485
1989	2,728	2,178	1,910	2,120	2,157	3,514	2,625	2,648	2,013	2,323	2,342
1990	3,228	2,647	2,181	2,341	2,416	3,742	3,461	2,856	2,281	2,657	2,664
1991	3,503	3,203	2,512	2,647	2,702	3,960	3,795	3,153	2,525	2,868	2,922
1992	3,897	3,641	2,744	3,059	2,966	4,459	4,145	3,522	2,829	3,226	3,347
1993	3,940	3,793	2,818	3,197	2,980	4,580	4,089	3,457	2,804	3,404	3,481
1994	4,040	3,981	2,856	3,206	3,092	4,678	4,183	3,531	2,947	3,463	3,652
1995	4,077	3,869	2,894	3,164	3,041	4,821	4,207	3,538	3,018	3,344	3,702
1996	4,005	3,753	2,922	3,103	3,041	4,813	4,110	3,464	3,055	3,159	3,656
1997	4,225	4,036	3,061	3,332	3,220	5,017	4,351	3,675	3,240	3,344	3,889
						Percent growth					
1980-1997	155.2	201.6	141.8	136.6	133.0	145.7	196.7	182.1	122.6	103.7	115.4
1980-1990	94.9	97.8	72.2	66.2	74.8	83.3	135.9	119.2	56.7	61.8	47.6
1990-1997	30.9	52.5	40.4	42.3	33.3	34.1	25.7	28.7	42.0	25.9	46.0

[1] — Inflation is adjusted by the gross domestic product implicit price index.

Table A3: Payroll Taxes as a Percentage of Gross Domestic Product, 1980-1997

	Canada	Nfld	PEI	NS	NB	Que	Ont	Man	Sask	Alta	BC
1980	2.8	2.8	3.0	3.5	3.4	3.8	2.6	2.5	2.0	2.0	2.9
1981	3.3	3.2	3.2	3.6	3.6	4.9	3.0	2.8	2.2	2.2	3.3
1982	3.4	3.1	3.1	3.3	3.4	4.9	3.1	3.2	2.2	2.3	3.4
1983	3.8	3.6	3.5	3.7	3.9	5.4	3.5	4.1	2.7	2.6	3.8
1984	3.9	3.6	3.7	3.7	3.8	5.3	3.6	4.0	2.7	2.6	3.9
1985	4.0	3.8	3.9	3.8	4.0	5.4	3.8	4.1	2.9	2.6	3.8
1986	4.2	3.9	3.8	3.9	3.8	5.5	3.9	4.3	3.1	3.2	3.8
1987	4.3	4.0	3.9	3.9	3.9	5.7	4.0	4.7	3.2	3.2	3.5
1988	4.3	4.2	4.0	4.1	3.9	5.8	4.1	4.8	3.3	3.3	3.6
1989	4.1	4.0	3.9	3.8	3.8	5.7	3.8	4.4	3.0	3.2	3.5
1990	4.9	4.8	4.4	4.3	4.3	6.0	5.1	4.7	3.3	3.5	4.0
1991	5.3	5.6	4.7	4.6	4.7	6.3	5.5	5.2	3.8	3.9	4.3
1992	5.7	5.9	4.8	5.1	5.1	7.0	5.8	5.6	4.2	4.2	4.8
1993	5.7	6.1	4.8	5.2	5.0	7.0	5.8	5.6	3.9	4.2	4.8
1994	5.7	6.1	4.9	5.3	5.0	7.1	5.8	5.5	4.0	4.2	4.9
1995	5.7	5.9	5.0	5.2	4.8	7.3	5.7	5.5	4.0	4.1	5.0
1996	5.6	5.7	5.0	5.1	4.8	7.3	5.6	5.3	3.7	3.8	5.0
1997	5.7	6.1	5.0	5.4	5.1	7.4	5.6	5.5	4.0	3.8	5.2
						Percent growth					
1980-1997	100.8	113.2	68.6	54.2	48.8	95.6	117.2	122.1	104.0	94.6	80.6
1980-1990	72.8	70.0	46.9	21.6	26.5	58.8	95.7	91.3	66.7	79.3	37.6
1990-1997	16.2	25.4	14.7	26.8	17.6	23.2	11.0	16.1	22.4	8.5	31.2

Table A4: Payroll Taxes as a Percentage of Total Federal and Provincial Government Revenues, 1980-1996

	Canada	Nfld	PEI	NS	NB	Que	Ont	Man	Sask	Alta	BC
1980	8.2	6.4	5.9	7.2	6.9	10.3	8.1	7.5	5.5	5.6	9.0
1981	9.1	7.0	6.3	7.7	7.1	12.1	9.0	8.1	5.8	5.8	10.2
1982	9.2	6.9	5.9	7.6	7.2	12.4	9.2	8.9	6.1	5.6	9.9
1983	10.4	8.2	7.2	8.8	8.7	13.3	10.6	11.1	7.3	6.2	11.1
1984	10.4	8.2	6.9	8.7	8.5	13.0	11.0	11.3	7.3	6.1	11.1
1985	10.7	7.9	7.6	9.0	8.8	13.2	11.4	11.6	7.9	6.5	11.1
1986	11.2	8.0	7.3	9.1	8.5	13.3	11.2	11.6	8.8	8.6	10.6
1987	11.3	8.2	7.6	9.1	8.5	13.8	11.5	12.0	8.3	8.5	9.9
1988	11.4	8.6	7.7	9.0	8.6	13.9	11.5	11.7	8.3	8.9	10.2
1989	10.9	8.2	7.2	8.6	8.2	13.6	10.8	10.9	7.0	8.8	9.6
1990	12.4	9.2	7.9	9.2	8.8	14.1	14.0	11.6	7.5	9.4	10.2
1991	13.2	10.4	8.5	9.9	9.6	14.4	15.3	12.0	8.5	10.2	10.9
1992	14.0	10.7	8.8	10.8	10.1	15.4	16.1	12.7	9.2	11.2	11.5
1993	14.2	11.1	9.2	11.2	10.2	15.9	16.0	12.6	9.2	11.8	11.6
1994	14.4	11.6	9.1	11.1	10.3	16.6	16.1	12.4	9.3	11.7	11.9
1995	14.3	11.2	9.7	10.8	10.0	16.5	16.0	12.4	9.3	11.4	12.1
1996	14.0	10.4	10.2	10.3	9.6	16.1	15.4	12.4	9.3	10.9	12.1
						Percent growth					
1980-1996	70.7	62.4	73.6	43.1	39.4	56.9	90.3	64.3	70.0	95.4	33.9
1980-1990	52.1	44.6	35.5	27.7	27.2	37.5	72.8	54.7	37.4	68.3	13.3
1990-1996	12.2	12.3	28.1	12.0	9.6	14.1	10.1	6.2	23.7	16.1	18.1

Table A5: Effective Payroll Tax Rates by Component, 1980-1997

		Canada	Nfld	PEI	NS	NB	Que	Ont	Man	Sask	Alta	BC
							Percent					
1980												
	EI	1.90	2.17	2.23	2.25	2.22	1.92	1.86	2.00	1.99	1.90	1.79
	C/QPP	2.18	2.46	2.49	2.48	2.51	2.19	2.09	2.23	2.31	2.32	2.15
	WC	1.14	0.69	0.77	0.96	0.89	1.37	0.93	0.54	1.07	1.12	1.64
	H/E	0.39					1.54					
	Total	5.61	5.32	5.49	5.69	5.62	7.02	4.88	4.77	5.38	5.34	5.58
1981												
	EI	2.57	2.73	2.93	2.85	2.85	2.64	2.62	2.72	2.64	2.36	2.34
	C/QPP	2.21	2.32	2.46	2.37	2.39	2.24	2.21	2.27	2.29	2.15	2.13
	WC	1.21	0.79	0.79	0.86	0.89	1.58	0.97	0.52	0.99	1.08	1.77
	H/E	0.63					2.59					
	Total	6.63	5.84	6.18	6.08	6.13	9.05	5.79	5.51	5.92	5.59	6.24
1982												
	EI	2.45	2.61	2.78	2.69	2.68	2.52	2.48	2.58	2.49	2.23	2.26
	C/QPP	2.20	2.35	2.44	2.33	2.37	2.23	2.19	2.26	2.28	2.12	2.11
	WC	1.27	0.80	0.69	0.89	0.92	1.54	1.03	0.49	0.90	1.29	1.99
	H/E	0.75					3.05		0.78			
	Total	6.66	5.76	5.91	5.92	5.98	9.33	5.70	6.11	5.67	5.64	6.36
1983												
	EI	3.47	3.71	3.92	3.77	3.80	3.59	3.49	3.64	3.44	3.18	3.23
	C/QPP	2.25	2.41	2.49	2.38	2.42	2.32	2.23	2.30	2.28	2.15	2.18
	WC	1.29	0.93	0.76	0.91	1.06	1.58	1.08	0.51	0.92	1.27	1.93
	H/E	0.77					3.05		1.43			
	Total	7.78	7.05	7.17	7.06	7.28	10.54	6.80	7.88	6.64	6.60	7.34

(continued)

Table A5 (continued): Effective Payroll Tax Rates by Component, 1980-1997

		Canada	Nfld	PEI	NS	NB	Que	Ont	Man	Sask	Alta	BC
							Percent					
1984												
	EI	3.56	3.81	3.99	3.83	3.88	3.66	3.56	3.71	3.54	3.32	3.36
	C/QPP	2.32	2.47	2.55	2.43	2.48	2.39	2.29	2.36	2.34	2.24	2.27
	WC	1.35	1.11	0.69	0.85	1.10	1.43	1.31	0.61	0.93	1.22	2.04
	H/E	0.76					2.98		1.36			
	Total	7.99	7.38	7.22	7.11	7.45	10.46	7.16	8.04	6.81	6.78	7.67
1985												
	EI	3.71	4.00	4.15	3.97	4.05	3.83	3.67	3.89	3.72	3.50	3.56
	C/QPP	2.39	2.54	2.59	2.50	2.55	2.46	2.34	2.45	2.42	2.32	2.36
	WC	1.41	1.15	0.69	0.86	1.15	1.45	1.51	0.81	0.98	1.10	1.82
	H/E	0.75					2.95		1.38			
	Total	8.25	7.69	7.44	7.33	7.75	10.69	7.51	8.52	7.13	6.92	7.74
1986												
	EI	3.78	4.06	4.16	4.04	4.08	3.91	3.72	3.95	3.82	3.60	3.65
	C/QPP	2.45	2.59	2.62	2.55	2.59	2.52	2.40	2.51	2.49	2.40	2.45
	WC	1.53	1.28	0.70	0.91	1.18	1.70	1.69	0.92	0.97	1.21	1.53
	H/E	0.78					3.11		1.38			
	Total	8.54	7.93	7.48	7.50	7.86	11.23	7.81	8.75	7.29	7.21	7.63
1987												
	EI	3.79	4.09	4.21	4.05	4.13	3.90	3.71	4.00	3.90	3.70	3.67
	C/QPP	2.53	2.70	2.74	2.64	2.69	2.60	2.46	2.61	2.61	2.51	2.51
	WC	1.63	1.35	0.68	0.97	1.27	1.96	1.86	1.08	1.06	1.11	1.08
	H/E	0.82					3.19		1.94			
	Total	8.77	8.13	7.62	7.65	8.10	11.65	8.04	9.63	7.57	7.32	7.26
1988												
	EI	3.78	4.10	4.19	4.09	4.13	3.96	3.65	4.02	3.91	3.70	3.68
	C/QPP	2.61	2.79	2.84	2.75	2.79	2.72	2.51	2.70	2.71	2.60	2.60
	WC	1.74	1.58	0.83	1.01	1.27	2.17	1.89	1.26	1.18	1.16	1.35
	H/E	0.80					3.17		1.95			
	Total	8.93	8.48	7.85	7.85	8.20	12.02	8.05	9.93	7.79	7.45	7.63

(continued)

Table A5 (continued): Effective Payroll Tax Rates by Component, 1980-1997

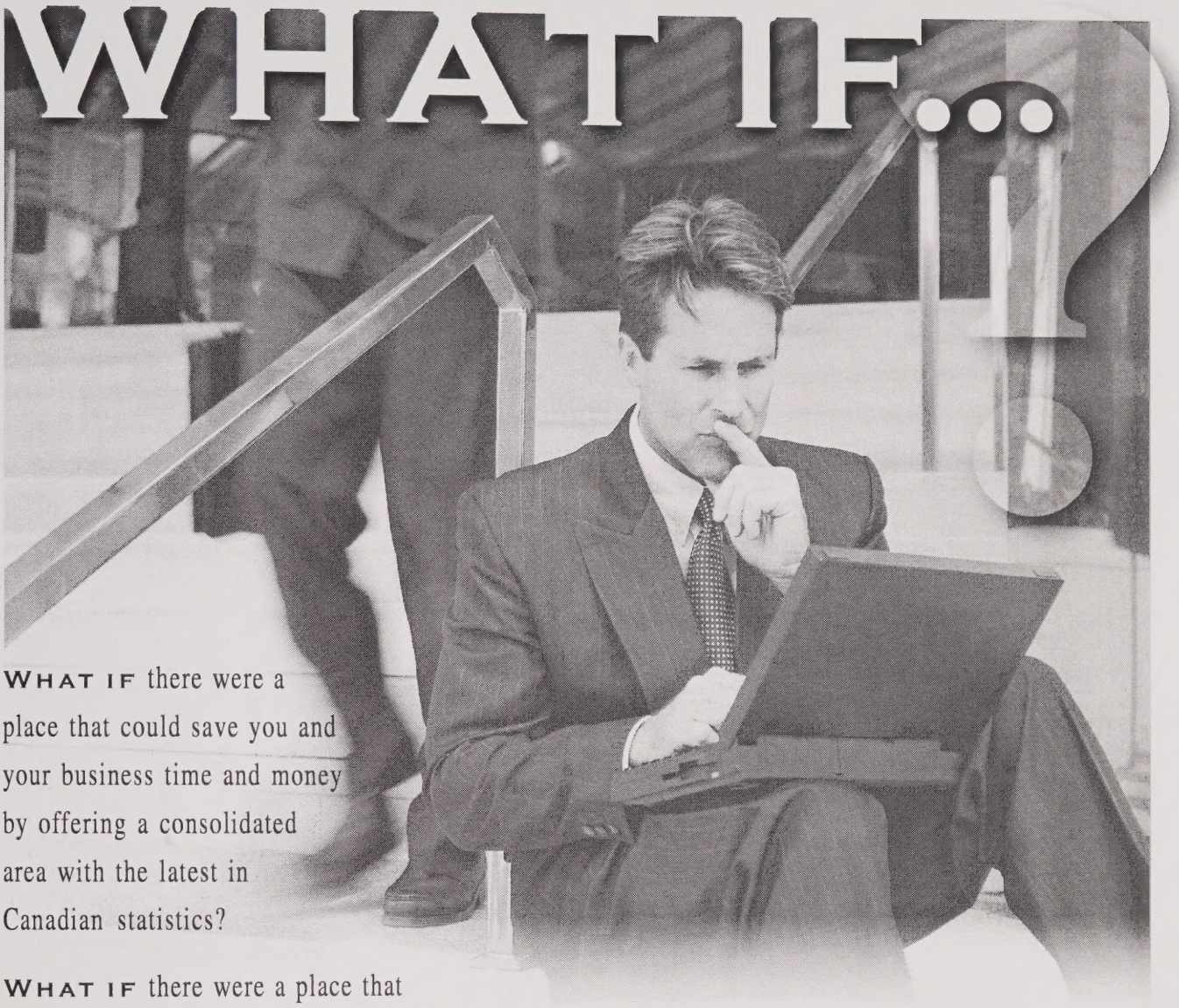
		Canada	Nfld	PEI	NS	NB	Que	Ont	Man	Sask	Alta	BC
							Percent					
1989												
	EI	3.13	3.38	3.45	3.40	3.41	3.28	3.02	3.34	3.29	3.08	3.04
	C/QPP	2.73	2.92	2.97	2.90	2.92	2.85	2.62	2.84	2.86	2.73	2.72
	WC	1.76	1.61	0.90	1.02	1.29	2.17	1.89	1.22	1.13	1.26	1.42
	H/E	0.82					3.32		1.79			
	Total	8.43	7.91	7.32	7.31	7.62	11.62	7.54	9.20	7.27	7.07	7.17
1990												
	EI	3.69	3.95	4.05	3.96	3.98	3.82	3.60	3.95	3.88	3.61	3.57
	C/QPP	2.86	3.04	3.11	3.02	3.07	2.96	2.78	2.98	2.98	2.85	2.84
	WC	1.68	1.84	1.00	1.07	1.32	1.96	1.83	1.25	1.14	1.32	1.38
	H/E	1.59	0.52				3.45	1.71	1.67			
	Total	9.82	9.36	8.16	8.05	8.37	12.20	9.91	9.84	8.00	7.78	7.78
1991												
	EI	4.25	4.55	4.63	4.59	4.61	4.41	4.15	4.54	4.44	4.12	4.13
	C/QPP	3.01	3.19	3.28	3.19	3.22	3.12	2.92	3.15	3.13	2.97	3.01
	WC	1.59	2.23	1.08	1.20	1.45	1.63	1.75	1.36	1.17	1.30	1.39
	H/E	1.66	1.03	0.00	0.00	0.00	3.52	1.86	1.68	0.00	0.00	0.00
	Total	10.52	11.00	8.99	8.97	9.29	12.67	10.68	10.72	8.74	8.39	8.53
1992												
	EI	5.12	5.49	5.57	5.52	5.54	5.30	5.00	5.47	5.35	4.96	4.96
	C/QPP	3.16	3.36	3.42	3.36	3.38	3.27	3.07	3.30	3.28	3.13	3.16
	WC	1.67	2.16	1.11	1.28	1.50	1.91	1.76	1.29	1.19	1.28	1.49
	H/E	1.66	1.38				3.63	1.78	1.66			
	Total	11.60	12.39	10.10	10.16	10.42	14.10	11.61	11.72	9.83	9.37	9.61
1993												
	EI	5.16	5.49	5.61	5.57	5.58	5.37	5.04	5.51	5.41	4.93	4.99
	C/QPP	3.31	3.48	3.59	3.52	3.55	3.44	3.22	3.46	3.44	3.24	3.30
	WC	1.65	2.31	1.26	1.41	1.39	2.01	1.59	1.20	1.14	1.52	1.61
	H/E	1.69	1.51				3.74	1.84	1.66			
	Total	11.82	12.80	10.46	10.51	10.51	14.56	11.68	11.84	9.99	9.69	9.89

(continued)

Table A5 (concluded): Effective Payroll Tax Rates by Component, 1980-1997

		Canada	Nfld	PEI	NS	NB	Que	Ont	Man	Sask	Alta	BC
							Percent					
1994												
	EI	5.33	5.65	5.79	5.79	5.76	5.58	5.20	5.71	5.57	5.03	5.18
	C/QPP	3.45	3.64	3.77	3.68	3.68	3.61	3.34	3.62	3.57	3.34	3.45
	WC	1.72	2.22	1.15	1.59	1.40	2.11	1.60	1.20	1.25	1.52	1.86
	H/E	1.69	1.57				3.86	1.80	1.63			
	Total	12.19	13.08	10.71	11.06	10.84	15.16	11.94	12.15	10.39	9.90	10.49
1995												
	EI	5.26	5.55	5.70	5.74	5.65	5.52	5.14	5.60	5.47	4.96	5.10
	C/QPP	3.61	3.77	4.00	3.86	3.84	3.78	3.49	3.76	3.71	3.49	3.58
	WC	1.80	2.18	1.28	1.67	1.26	2.21	1.75	1.29	1.38	1.22	1.99
	H/E	1.77	1.59				4.24	1.78	1.58			
	Total	12.43	13.10	10.98	11.27	10.75	15.75	12.16	12.22	10.56	9.67	10.68
1996												
	EI	4.93	5.29	5.33	5.44	5.38	5.23	4.78	5.29	5.18	4.61	4.77
	C/QPP	3.71	3.94	4.04	3.99	3.97	3.91	3.59	3.86	3.84	3.57	3.69
	WC	1.72	2.19	1.35	1.70	1.21	2.14	1.68	1.25	1.48	0.96	1.96
	H/E/Training	1.79	1.53				4.38	1.78	1.56			
	Total	12.14	12.95	10.72	11.14	10.56	15.66	11.83	11.95	10.50	9.13	10.41
1997												
	EI	4.98	5.90	5.73	5.63	5.60	5.42	4.82	5.36	5.14	4.33	4.89
	C/QPP	3.92	4.61	4.57	4.34	4.35	4.25	3.77	4.12	4.00	3.50	3.95
	WC	1.62	2.17	1.36	1.64	1.10	2.03	1.55	1.18	1.60	0.95	1.87
	H/E/Training	1.71	1.49				4.38	1.65	1.59			
	Total	12.23	14.17	11.66	11.60	11.05	16.08	11.78	12.25	10.73	8.78	10.72

WHAT IF...



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